Operating Manual **Englisch**

UFS 931sw/HD+

HD + by ASTRA **Satellite receiver**

KATHREIN

Antennen · Electronic

Preface

Dear customer,

this operating manual is intended to help you make the fullest use of the extensive range of functions offered by your new HD+ satellite receiver.

We have tried to make the operating instructions as easy as possible to understand, and to keep them as concise as possible. To help you understand particular specialist terms that cannot be translated, we have added a short glossary at the end of the manual.

If you will not be using your receiver for a longer period, you should use disconnect it from the mains to save energy. For shorter breaks, you can use the remote control to switch the receiver to standby, which uses only a minimal amount of energy.

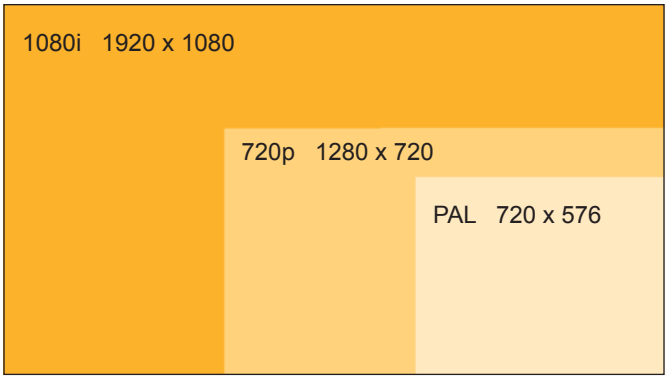
We wish you good reception and hope you will enjoy using your new HD+ receiver.

Your
KATHREIN team

Difference Between PAL and HDTV

The difference between PAL and HDTV

High-resolution TV is characterised by a significantly higher number of picture lines on the TV set. The usual European standard PAL achieves a resolution of 576 lines vertically and 720 lines horizontally. The high-resolution TV provides an impressive resolution, up to five times higher than the usual PAL standard TV, and hence delivering more detail sharpness and responsiveness.
A HDTV picture can contain up to five times as many picture points, that is, approximately 2 million pixels compared to a conventional PAL picture with only approximately 400,000 pixels.
Worldwide there are currently two HDTV standards, based on the two formats 1080i and 720p. The two standards differ in the number of picture lines and in the transmission procedure. To the human eye, the difference between the two HDTV standards is hardly perceptible; whereas in comparison to the PAL system, moving pictures look much more dynamic in HDTV. Transmission technology and reception equipment will be able to handle both standards in the future.



List of Contents

Preface 2

Difference Between PAL and HDTV 3

List of Contents 4

Safety Instructions - Important Notes 6

Connection and Set-Up 10

Scope of supply 10

Inserting batteries into the remote control 10

Front/rear view of the receiver (front flap open) 11

Connecting the receiver 12

TV connection 12

Audio connection 13

Digital 13

Analogue 13

First installation 14

Common Interface 27

Important information 27

Inserting the HD+ Card in the smart card reader 27

Inserting the smart card and the CA module 28

Basic Functions 29

Remote control for live operation (TV/Radio) 29

I want to watch TV 30

I want to listen to the radio 31

I want to see teletext 32

Editing and selection options in the menus 33

Channel selection from the channel list 34

Channel Information 36

Calling up the channel options 37

Audio Selection 38

Subtitles Selection 38

Teletext 39

Electronic Programme Guide (EPG) 40

General information on the programme guide 40

Calling up the EPG 41

Navigation in the EPG (remote control buttons in the EPG) 42

Views using the EPG 43

“Current” View 43

“Preview” View (Program guide) 44

Timer List View 44

Genres view (movies, series ...) 45

Recording settings (programming the timer) 46

Recording “Once Only” 47

Recording “Daily” 48

Recording “Weekly” 48

Recording “Monday to Friday” 49

Overlapping recordings 49

Timer List 50

Main Menu 51

Calling up the main menu and introduction 51

Menu overview 52

Main Menu - Edit Channel List 53

Calling up the “Edit Channel List” menu 53

Editing channel list 53

Editing TV or radio channel lists 53

Pre-sorting complete channel list (filtering) 54

Moving a channel 54

Adding channel to favourites list 55

Deleting channel or removing from favourites list 56

Main Menu - Search for Channels 57

Standard Channel Search 57

Automatic Search 58

Advanced Channel Search 60

List of Contents

Main Menu - Security..... 62

Main Menu - Settings..... 64

Video Settings 64

Audio Settings 66

Menu Settings 67

Miscellaneous 68

CA module..... 70

CI (Common Interface)..... 70

Common interface expert settings..... 71

LNB Settings 71

Main Menu - Service Menu..... 72

Sat Finder..... 72

Channel Information..... 73

Smartcard (HD+ Card) 73

PIN Change (HD+ Card) 73

System Information (Update Software)..... 73

Update Software..... 74

Restore Factory Settings..... 76

Main Menu - Language..... 77

Troubleshooting 78

Technical Appendix..... 79

Alphanumeric entries 79

Advanced connection example 80

Technical specifications..... 81

Sat IF connection examples..... 82

Single systems 82

Community antenna network systems (4 x Sat IF)..... 82

Community antenna network systems (8 x Sat IF), multi-feed..... 83

Community antenna network systems (16 x Sat IF), multi-feed..... 83

Single cable systems..... 84

Short technical guide..... 86

Service..... 89

General Terms and Conditions of Business for HD+ 90

For your notes 94

Safety Instructions - Important Notes

These two pages contain important information about operation, installation location and connection of the unit. Read these instructions carefully before setting up the device.

Danger!

Mains cable

Make sure that the mains cable (power supply cable) is not damaged. Units with a damaged mains cable must be disconnected from the mains (unplugged at the mains power socket) and repaired by an electrical specialist before being used. Only use the power pack supplied (if available)!

Risk of fatal injury due to electric shock!

Cleaning

Disconnect the mains plug before cleaning the unit. Only use a dry cloth for cleaning and only clean the outer surface. Never open the casing of the unit.

Touching the parts inside the unit carries a risk of death due to electric shock!

Playing children

Make sure that children do not push any objects into the ventilation slots.

Risk of fatal injury due to electric shock!

Warning!

Earthing

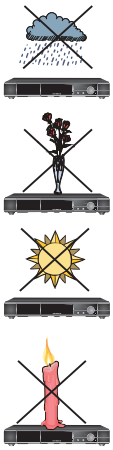
The antenna system must be earthed as specified or equipotentially bonded.
EN 60728/11 and any national regulations must be complied with.

Risk of voltage surges due to lightning strikes!

Power supply voltage

Only operate the unit at the specified mains voltage (indicated on the rear of the unit or on the external power pack). The unit may only be connected to the mains and switched on once it has been connected to the antenna and to the TV set or the cable network and PC.

If the mains voltage is too high, there is a risk of fire!



Moisture, direct sunlight, heat, naked flames

Protect the unit against moisture, dripping and splashed water (do not place any filled objects such as vases on top of the unit). Do not place the unit close to a heater or expose it to direct sunlight and do not operate it in damp locations. Only use the unit in a moderate climate, not in tropical conditions! Place no naked flames such as candles on top of the unit!

There is a risk of fire!

Batteries

If your unit was supplied with batteries (e.g. for the remote control), take care that the batteries are not exposed to excessively high temperatures, direct sunshine or fire. Exchange the batteries only with types that are identical or equivalent. Otherwise the batteries and also the remote control may be damaged. Comply also with the safety instructions stated on the batteries:

There is a risk of explosions!

Warning!

Warning!

Ventilation

The heat generated in this unit is adequately dissipated. However, the unit should never be installed in a cupboard or on shelves with inadequate ventilation. Never cover the cooling slots on the unit (e.g. with other equipment, magazines, tablecloths, clothing or curtains)!

Do not cover

→

Do not place any objects on top of the unit. Unless stated to the contrary in the “Connection and Set-Up” and “Installation” sections in the manual supplied, maintain a clearance of at least 10 cm above the unit, 2 cm to either side and 5 cm behind the unit, to allow unobstructed dissipation of the heat generated.

There is a risk of fire!

Important!

Repairs

Ensure that any repairs to your unit are carried out by qualified personnel. Opening the unit and attempting to repair it yourself voids all warranty claims!
Improper work on the unit may jeopardise the electrical safety of the unit.

The manufacturer accepts no liability for accidents caused by the user opening the casing of the unit!

Connections

Incorrect wiring of the connections can lead to malfunctions or defects on the unit!

Periods of extended absence, thunderstorms, mains socket accessibility

In order to disconnect the unit from the mains completely, the mains plug must be unplugged from the wall socket! Therefore install the unit close to a mains socket and make sure that socket is accessible at all times, so that you can disconnect the unit from the mains if necessary.
If you are away for an extended period, and during thunderstorms, always switch the unit off at the mains and unplug it from the socket. This also applies to the other equipment connected to the unit. Isolation from the cable network is also recommended. Note any timer programming (receiver) and turn the unit on again promptly before the recording time.

Installation location

All electronic equipment generates heat, The temperature rise of this unit does however lie within the permissible range. Sensitive furniture surfaces and veneers may become discoloured by the effects of constant heat over time. The feet of the unit can also cause colour changes to treated furniture surfaces. If necessary, place the unit on a suitable stable and flat base!

Electronic equipment is not domestic waste - it must be disposed of properly in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 concerning used electrical and electronic appliances.
At the end of its service life, take this device for disposal at a designated public collection point.

Spent batteries are special waste!
Do not throw spent batteries into your domestic waste; take them to a collection point for spent batteries!

Safety Instructions - Important Notes

Channel assignment

The channels available on the satellites and transponders are subject to continual change. If changes do occur, the new channels have to be set on the receiver because the factory preset programming corresponds to the status on the date of manufacture. The information for these settings can be found on the Internet or in relevant magazines.

Updating the receiver software

Your receiver was equipped in the factory with the latest software version at that time. We are, however, constantly working on adapting the software to the wishes of our customers and to developments in technology. Further information on this can be found in the chapters “Main Menu - Service Menu”, “System information - (software update)”.

Product return/original packaging

Please keep the original packaging in case you need to return the product at any time! The receivers are fragile due to their construction and are only adequately protected by the original packaging. If the receiver is not shipped correctly the guarantee/warranty on it will be voided.

Software changes/use of applications

Any modifications to the receiver software, or the use of applications not provided by Kathrein, will invalidate the warranty! You will have to bear the costs yourself for shipping and repairing any receiver that requires attention due to modifications to the software and use of applications other than those provided by Kathrein!
Therefore exclusively use only software and applications provided by Kathrein for your receiver. These are available by downloading from the satellite or from our Internet pages (www.kathrein.de).

Ventilation slots on the unit

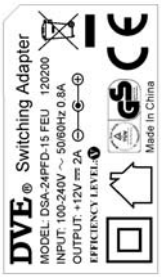
Make sure that the ventilation slots on the unit are not covered in any way. Otherwise the unit may overheat.

There is a risk of fire!

Power supply unit

The power supply unit and the receiver are for indoors use only! Use the power supply unit supplied with the receiver. The use of any power supply unit may damage the receiver.

There is a risk of fire!



The original power supply unit may differ from that illustrated

Safety Instructions - Important Notes

Switching the receiver off

Before you switch disconnect the receiver from the mains, you must switch it to the standby mode by pressing the stand-by button (on/off) on the remote control. In standby mode, any changed or new data that is broadcast will be saved by the receiver. As soon as the receiver is in the standby mode, it can be disconnected from the mains at any time.

You must not disconnect the receiver from the mains while it is in operation! This can lead to a loss of data and corruption of the software.

Information on Audio MPEG Inc. and S.I.SV.EL, S.P.A:

This unit makes use of legally protected technologies, which are protected by patents in the USA and also by other intellectual property rights in other countries.
KATHREIN-Werke KG has obtained licences from Audio MPEG Inc. and Societa' Italiana per lo sviluppo dell'elettronica, S.I.SV.EL, S.P.A to use these technologies. These licences carry certain restrictions, which apply also to you as the customer. Accordingly this unit may only be used by the end customer for private non-commercial purposes and for the licensed content. It may not be used for commercial purposes. The use of products or processes that are sold or used with this unit is not included in this statement. The use of reverse engineering is not permitted in respect of the licensed technologies, nor is disassembly.

Miscellaneous

The information in this operating manual was correct at the time of going to print. We reserve the right however to make changes at any time and without prior notice. If new software is released for your receiver, and this affects the information in the operating manual (e.g. changes to the menus and/ or functions), if we believe it necessary we will make available a new operating manual for download under "www.kathrein.de".

Make a note of the receiver's basic settings (these are set during the first installation), so you can restore them if necessary!

The term DiSEqC™ used in this operating manual is a registered trade mark of the European Telecommunication Satellite Organisation (EUTELSAT).

DOLBY DIGITAL

Manufactured under licence from Dolby Laboratories. "Dolby" and the double-D symbol are registered trademarks of Dolby Laboratories.

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

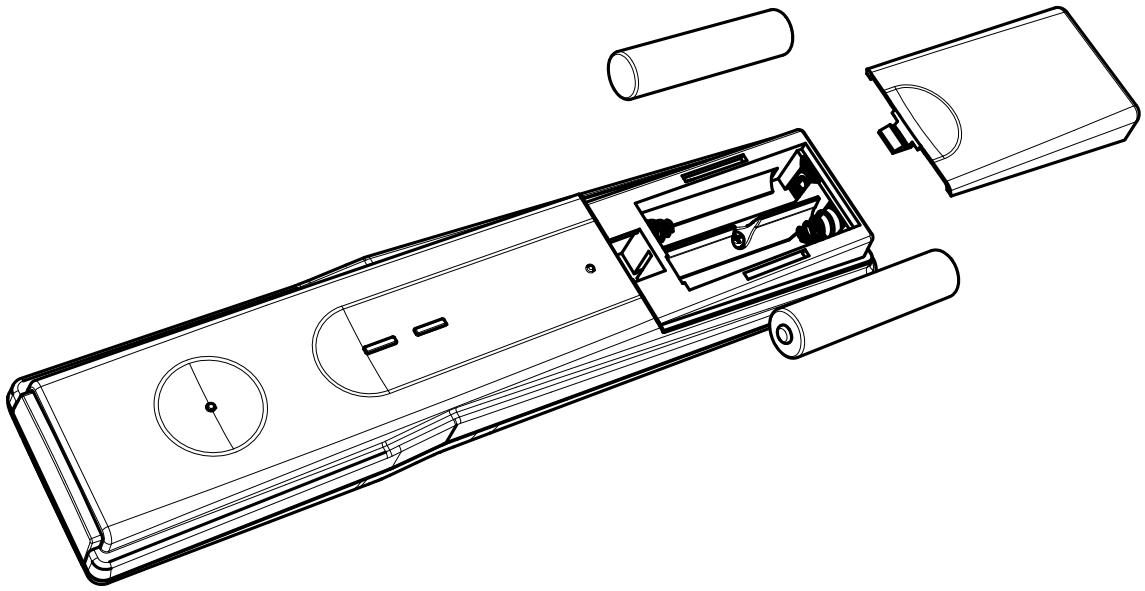
Connection and Set-Up

Scope of supply

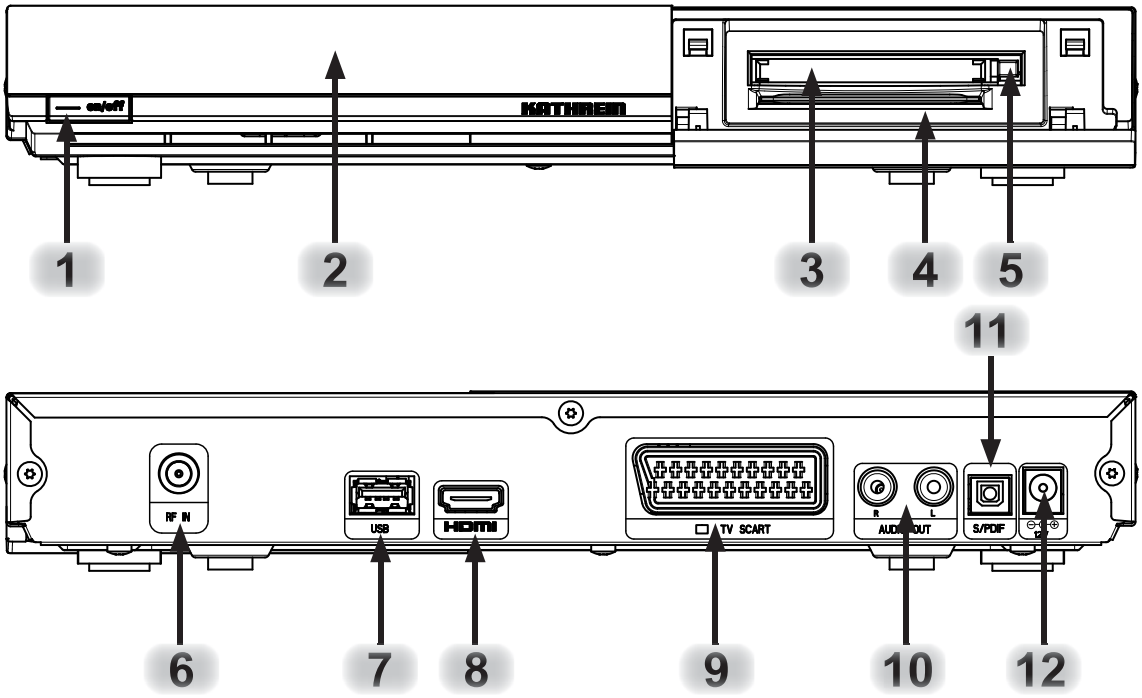
- UFS 931sw
- Remote control RC 671
- HDMI cable
- 2 batteries AAA 1.5 V
- Power supply unit 230 V/12 V
- Operating Manual
- Safety instructions (multi-lingual)

Inserting batteries into the remote control

Remove the cover on the rear of the remote control. Insert the two batteries supplied into the remote control. Ensure correct polarity of the batteries; the + and – markings as indicated inside the battery compartment. Slide the cover back onto the housing until it locks in place.



Front/rear view of the receiver (front flap open)



1. On/off switch (operation/standby) [1)]
2. 4-character display
3. Common Interface for fitting one CA module for Pay-TV cards
4. Card reader (Nagravision integrated - for HD+ Card)
5. Ejection button for CA module
6. RF(IF) input
7. USB 2.0 port (for service purposes only)
8. HDMI connection
9. Scart socket for TV connection
10. Audio outputs (L/R) - cinch sockets
11. Digital data stream output (SPDIF/Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
12. Power supply connection (12 V)

[1)] The unit is not fully disconnected from the mains (see the sections “Safety Instructions - Important Instructions” and “Periods of extended absence, thunderstorms, mains socket accessibility”)

LED in the front panel display:
The LED lights up:

Red Receiver is in standby mode

The LED flashes:

Red (once) Remote control has been operated
Red (continuous) Recording in progress

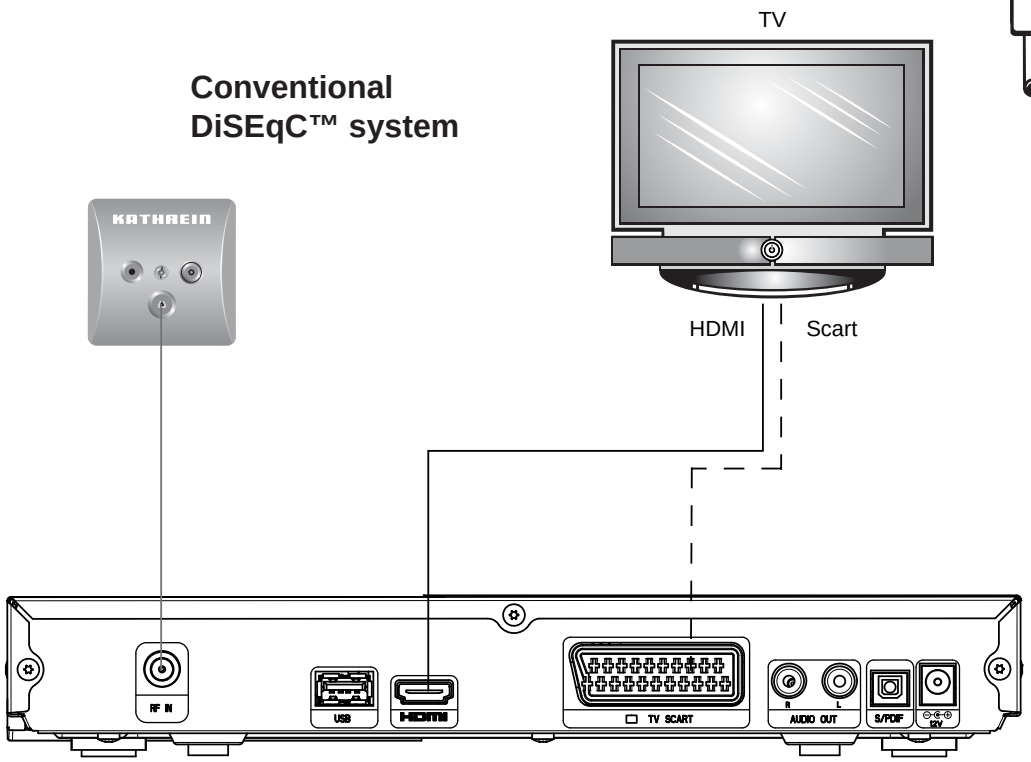
HDMI = High-Definition Multimedia Interface (digital interface for video and audio)

RF(IF) = Intermediate frequency - satellite signal for the receiver converted by the LNB

Connecting the receiver

If you do not know the configuration of your satellite reception system, contact your specialist dealer.

Connect the Sat IF inputs on the receiver to the satellite reception system.
Use coaxial cable with an F standard connector (see illustration on right).



TV connection

Connect the satellite receiver (HDMI or alternatively TV Scart socket) and the TV set using an HDMI or Scart cable (see “Connection example”).

Audio connection

Digital

There are two ways you can access the digital audio.

HDMI

The stereo audio is transmitted to your TV set via the HDMI interface. If your TV set also supports Dolby Digital, you can also receive the Dolby Digital audio via the HDMI interface (provided broadcast by the channel provider). On this issue pay attention to the operating manual for your TV set.

SPDIF Dolby Digital output

The SPDIF output is intended for the connection of a Dolby Digital system (see “Advanced connection example” in the technical appendix). Connect the SPDIF output and the Dolby Digital system using an appropriate cable.

Analogue

If you want to play the sound on your hi-fi system, connect the audio cinch sockets to the input sockets on the hi-fi system, using an appropriate cable (see “Advanced connection example” in the technical appendix).

SPDIF = Sony Philips Digital Interface Format (digital output for Dolby Digital AC 3 audio)

First installation

Before you start to use the UFS 931, read the chapters “Safety Instructions - Important Instructions”, “Important Information” and “Connection and Set-Up” through to the item “First installation”.

Do not connect the unit to the mains until all installation work has been properly carried out.

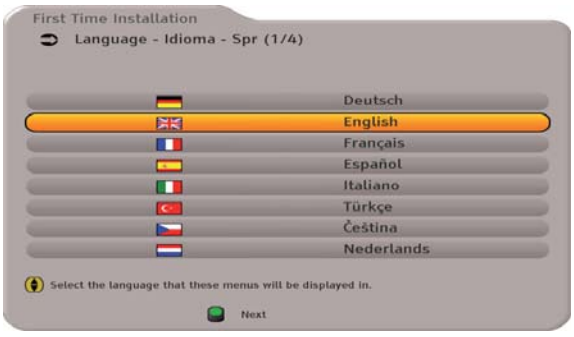
The guidance provided in the “First installation” section assumes that the receiver has been properly connected as per the “Safety Instructions - Important Information” and “Connection and Set-Up” chapters through to the “First installation” section.

Required buttons on remote control for first installation:

0 ␣ ... 9 wxyz	Numeric input	PIP (Green)	Proceed to next step in first installation
FAV (Red)	Go back one step in the first installation	OK	Confirm the changed values/setting
	Select/change individual menu parameters, navigation		
BACK	Cancel input, go back		

First switch your TV set on and select the AV-/HDMI input you have used to connect the receiver to your TV set. Switch on the receiver at the power switch on the front of the unit. Undertake the first installation. If you have any questions or encounter problems, contact your specialist dealer.

The following on-screen display appears:



Tip! **Always pay attention to the bar at the bottom of the on-screen display. This provides information on what to do next.** Tip!

Use the ▲ ▼ buttons to select the desired menu language for your receiver. The selected language will be given a coloured background. The following languages are available: German, English, French, Spanish, Italian, Turkish, Czech and Dutch.

Press the PIP (green) button to move to the next menu. The following on-screen display appears:

Use the buttons here to select the basic settings for the video output of the receiver to the TV set.

During this process refer to the operating manual for your TV set and take care to select only those settings that your TV set can process.

Screen Format

Here you can select the TV picture format. Either

- 4:3 or
- 16:9/Widescreen TV

Picture Scaling

Here you can select the type of screen display, depending on the setting of your TV format:

- Screen format “4:3”: Pan & Scan or Letterbox
- Screen format “16:9”: Always 16:9 or Automatic

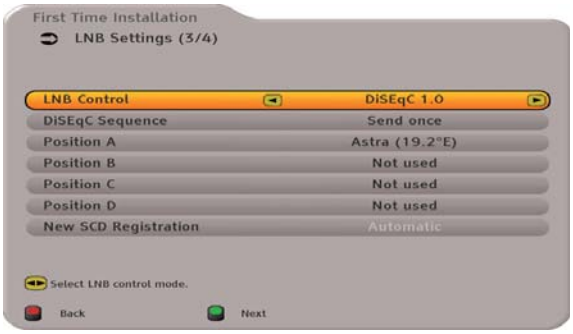
TV Output Format

Select the type of video signal at the TV Scart socket here. Select the signal that your TV set can process.

- FBAS – Colour video baseband signal,
- RGB – Red/Green/Blue signal or
- S-Video - Luminance/chrominance

Press the PIP (green) button to move to the next menu.

The following on-screen display appears:



Tip!

If your receiver is connected as in the connection example (see illustration above), no changes are necessary in the rest of the first installation. If you are not familiar with the details of your reception system, note the following:

In many cases the satellite reception system is a DiSEqC™1.0 system. This type of system is preadjusted. Confirm the rest of the on-screen displays during the first installation using the PIP (green) button. You cannot damage your reception system during this process! If you do not receive a TV picture at the end of the first installation, contact your specialist dealer.

Tip!

You should perform the tuner configuration/make changes yourself only if you are fully familiar with the particulars of your reception system.

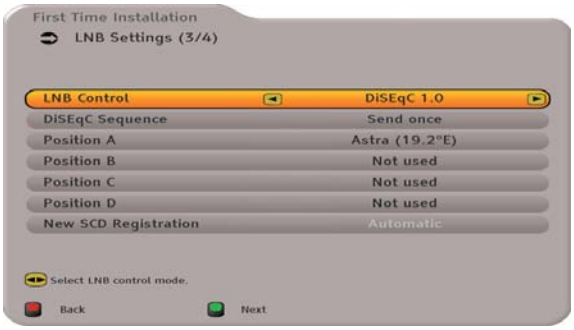
You can set up the antenna (tuner) configuration for the following types of reception systems:

- DiSEqC™1.0
- Single Cable System
- No LNB power (if your LNB has a dedicated power supply)
- No DiSEqC™
- Toneburst

Continue as described in the first installation for the type of reception you have selected.

DiSEqC™1.0

The individual items are selected using the ▲▼ buttons. If you need to access sub-menus, they can be called up using the OK button. The changes to the current settings can be performed using the ◄► buttons or the number pad.



DiSEqC™ Sequence

Using the ◄► buttons select here how often the DiSEqC™ command is to be sent.

Position A-D (satellite selection)
Position A

Press the OK button to open the sub-menu. You can select a satellite and define the related LNB configuration (frequencies) for it. Then press the PIP (green) button. If you change the default setting (in this example “ASTRA 19.2°E”), a prompt “Save LNB settings?” will be displayed. Select “Yes” or “No” using the ◄► buttons and confirm your selection using the OK button.

Repeat the process as necessary for the other positions (B, C, D).

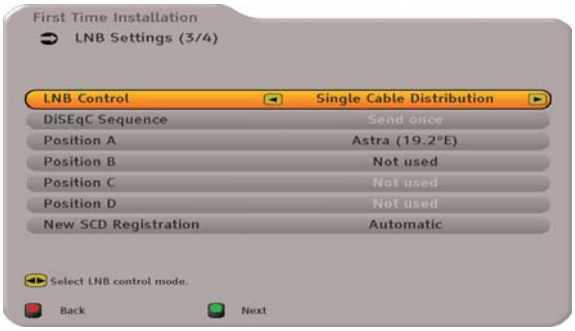
During the selection of the satellites, ensure you only select satellites that you can actually receive using your reception system.

Press the PIP (green) button to move to the next menu (software update). Continue the first installation with the “Software update” chapter in the first installation.

LNB = Low Noise Block converter (feed system)

Single Cable

The individual items are selected using the ▲▼ buttons. If you need to access sub-menus, they can be called up using the OK button. The changes to the current settings can be performed using the ◄► buttons or the number pad.



The possible options for a single-cable system with Kathrein components are summarised at the end of this manual in the "Technical Appendix" section under "Single-cable systems".
Depending on the system to which they are connected, a maximum of four or eight receivers may be connected to a single-cable system (a twin receiver counts as two receivers).

DiSEqC™ Sequence

Cannot be changed.

Position A and B (satellite selection - max. two)

Position A

Press the OK button to open the sub-menu. You can select a satellite and define the related LNB configuration (frequencies) for it. Then press the PIP (green) button. If you change the default setting (in this example "ASTRA 19.2°E"), a prompt "Save LNB settings?" will be displayed. Select "Yes" or "No" using the ◄► buttons and confirm your selection using the OK button.

Repeat the process as necessary for the second position (B).

LNB = Low Noise Block converter (feed system)

If you use a UAS 481 (single cable LNB) in your reception system, you are only allowed to select a satellite in position "A". The remaining positions remain empty and must be set to "Not used". In addition, for position "A" after pressing the OK button both frequencies (LOF) must be set to "10200". The settings can be made using the number pad or the ◄ ► keys. Then press the PIP (green) button and on "Save LNB settings" select "Yes". Confirm the selection with the OK button.

Use the ▲ ▼ buttons to switch to the "New SCD Registration" line. Using the ◄ ► buttons select the "Manual" setting, and press the OK button. The following on-screen display appears:

You can only use the "Secure Channel with PIN" function if this function is supported by the single-cable components used. In the case of Kathrein single-cable components, this is currently only the case for the EXU 908.

Connected equipment

Use the ◄ ► buttons to select the type of single cable system used in your reception system: If your system or your single cable component is not listed, select the setting "Userdefined".

Your available options are:

- KATHREIN UAS 481 (single-cable LNB),
- KATHREIN EXR 551,
- KATHREIN EXR 552,
- KATHREIN EXU 908 or
- Userdefined (for all single-cable systems not covered by any of the above specifications)

Refer to the documentation supplied with your system for the settings for the SCR, frequencies and any PIN assigned to the tuner. You will find there a printed list showing the assignment between the various SCRs and the respective transmission frequencies. It may happen that you cannot freely select the PIN for protection of individual frequencies; this also may be listed in the documentation for the single-cable components.

Please note also that multiple receivers cannot share the same frequencies/ channels - the receivers would interfere with each other.

Transmission channel
Select a free available transmission channel.

Transmission Frequency

If not preset by the receiver, select here one of the free available transmission frequencies.

See example on the right (EXR 551) assignment of a transmission channel to a transmission frequency.

EXR 551
20510024

1 = SCR(0) 1400 MHz
2 = SCR(1) 1516 MHz
3 = SCR(2) 1632 MHz
4 = SCR(3) 1748 MHz

Secure Channel with PIN (not possible in every system)

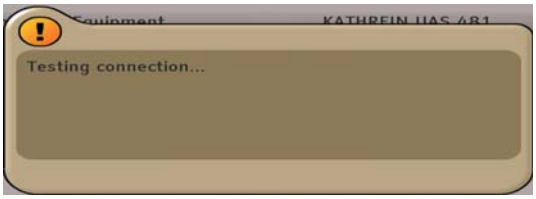
If your single cable system allows the transmission frequency to be protected by entering a PIN, this is the menu where that can be done. No other receiver can then use this transmission frequency unless the PIN is entered.

Select the setting “Yes”. You then have the use of the number pad to enter a PIN code (0-255) in the line beneath “Password PIN”.

Test Connection

Switch to the “Test Connection” line and press the OK button. The receiver now tests the settings you have made.

The following message appears:



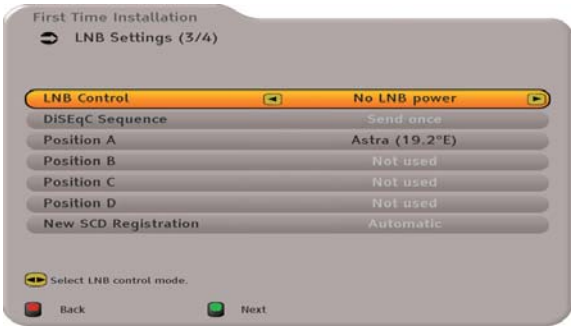
SCR = Satellite Channel Router (transmission channel)

Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.

Press the OK button to confirm the displayed message. Then press the PIP (green) button twice to move to the next menu (software update). Continue the first installation with the “Software update” chapter in the first installation.

No LNB power

The individual items are selected using the ▲▼ buttons. If you need to access sub-menus, they can be called up using the OK button. The changes to the current settings can be performed using the ◄► buttons or the number pad.



Position A (satellite selection)

Press the OK button to open the sub-menu. You can select a satellite and define the related LNB configuration (frequencies) for it. Then press the PIP (green) button. If you change the default setting (in this example “ASTRA 19.2°E”), a prompt “Save LNB settings?” will be displayed. Select “Yes” or “No” using the ◄► buttons and confirm your selection using the OK button.

During the selection of the satellite, ensure you only select a satellite that you can actually receive using your reception system.

Press the PIP (green) button to move to the next menu (software update). Continue the first installation with the “Software update” chapter in the first installation.

LNB = Low Noise Block converter (feed system)

No DiSEqC™

The individual items are selected using the ▲▼ buttons. If you need to access sub-menus, they can be called up using the OK button. The changes to the current settings can be performed using the ◄► buttons or the number pad.

Position A (satellite selection)

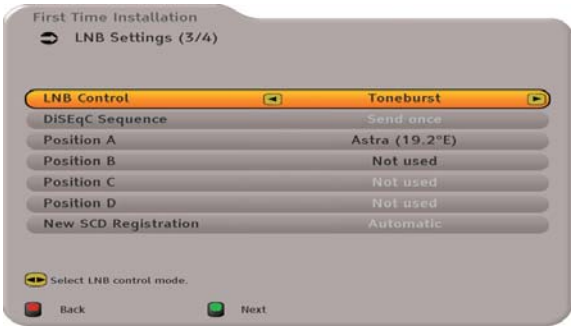
Press the OK button to open the sub-menu. You can select a satellite and define the related LNB configuration (frequencies) for it. Then press the PIP (green) button. If you change the default setting (in this example “ASTRA 19.2°E”), a prompt “Save LNB settings?” will be displayed. Select “Yes” or “No” using the ◄► buttons and confirm your selection using the OK button.

During the selection of the satellite, ensure you only select a satellite that you can actually receive using your reception system.

Press the PIP (green) button to move to the next menu (software update). Continue the first installation with the “Software update” chapter in the first installation.

Toneburst

The individual items are selected using the ▲▼ buttons. If you need to access sub-menus, they can be called up using the OK button. The changes to the current settings can be performed using the ◄► buttons or the number pad.



Position A-B (satellite selection)
Position A

Press the OK button to open the sub-menu. You can select a satellite and define the related LNB configuration (frequencies) for it. Then press the PIP (green) button. If you change the default setting (in this example “ASTRA 19.2°E”), a prompt “Save LNB settings?” will be displayed. Select “Yes” or “No” using the ◄► buttons and confirm your selection using the OK button.

Repeat the process as necessary for the position (B).

During the selection of the satellites, ensure you only select satellites that you can actually receive using your reception system.

Press the PIP (green) button to move to the next menu (software update). Continue the first installation with the “Software update” chapter in the first installation.

LNB = Low Noise Block converter (feed system)

Software update

After the LNB settings the receiver starts a software update automatically. If new software is available for your receiver, it will be loaded automatically by the receiver.

This software download can take up to an hour.

However, you do not need to undertake the software update now, you can also update later manually using “Main Menu”, “Service”, “System information”. In this case cancel the software update using the BACK button. You are prompted as to whether you are sure you want to cancel the software update. Use the ◄ ► buttons to select “Yes” and confirm by pressing the OK button. The receiver automatically starts the channel search.

Channel Search

The following on-screen display appears:

The following on-screen display then appears (a few seconds later):

Scanning 80%
Satellite
Astra (19.2°E)
12604 MHz - H - 22000
Press < > to choose your prefered channel list and press <OK> to store it.
Channel List Germany
BACK
Press < > to choose your prefered channel list and press <OK> to store it.

Using the ◄► buttons you can select here the country list (important for pre-sorting the programmes) in which the channels found (programmes) are to be saved. Currently only the selection "Channel List Germany" is available. Confirm the selection with the OK button.

The following on-screen display then appears:

Press the OK button to terminate the first installation. The receiver automatically displays the TV picture.

Common Interface

Important information

Always follow the operating instructions from your Pay-TV provider and the instructions supplied with the smart card and the CA module!

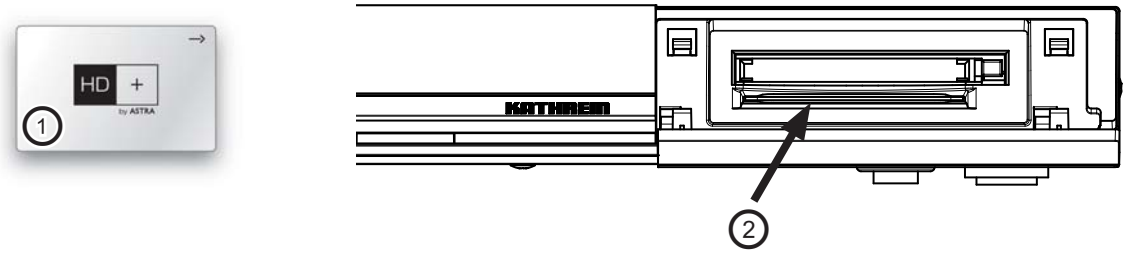
The cards and modules are issued by the respective Pay TV providers, and contain the subscriber data and details of the channels for which the subscriber has paid. These channels are always scrambled.
Contact the Pay TV provider if you are interested in subscribing to a particular Pay TV channel.

You are responsible for the use of the smart card in the CA!

The smart card sold by the Pay TV provider, specific to a particular encryption technology, is inserted into the CA module.

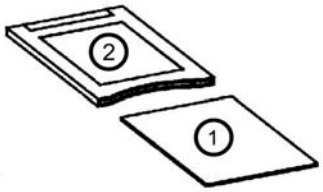
Store your card and PIN code securely when not in use!

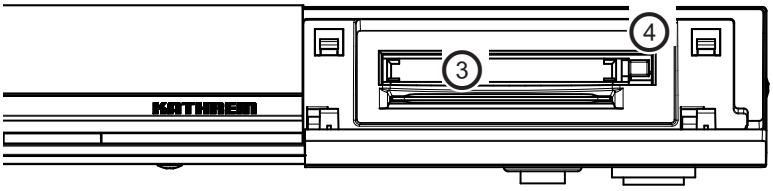
Inserting the HD+ Card in the smart card reader



The smart card reader (small slot) ② on the UFS 931 (Nagravision embedded) is intended to be used for the HD+ Card. The smart card reader is behind the flap on right on the front underneath the Common Interface (large slot). It must be possible to insert the smart card (chip contacts pointing down) in the smart card reader without the need for a large amount of force. Do not use excessive force and pay attention to the manual supplied with the smart card.

Inserting the smart card and the CA module





The Common Interface (CI) ③ on the UFS 931 is suitable for the use of one CA (Conditional Access) module. The CI slot is behind the flap on the right on the front. The CA module ② holds the smart card ① (chip contacts pointing downwards and towards socket strip) and is then inserted in the CI slot ③. The smart card should be inserted into the CA module without exerting excessive force. This also applies to inserting the CA module into the CI slot.

Do not use a excessive force and follow the instructions supplied with the smart card and the CA module. To remove the module, press the relevant eject button ④.

Remote control for live operation (TV/Radio)

Currently unavailable

Number pad

Call up main menu

Volume “-” (softer)

Mute

FAV = Call up favourites list

PIP = Display HD and audio settings

Call up EPG (Electronic Programme Guide)

Select last channel called up, exit on-screen displays/ menus step by step

◄◄ ►► = Selection of sub-pages in teletext

Operation (on)/Standby (off)

Call up teletext

Volume “+” (louder)

Channel selection

Call up channel information (info banner and detailed information)

OPT = Call up options menu

TV/R = Switch between TV/radio mode

Call up the recording archive

= Navigation/channel or change channel option

OK = Call up channel list, confirmation/call up selection

Not currently used

= Teletext transparent

= Teletext font size

= Stop teletext search

I want to watch TV ...

- Using VOL + VOL - increase and decrease the volume
- Using + - switch channels
- Using i display and hide again additional channel information
- Using mute the audio

- Using 0 ... 9 wxyz enter the channel number directly

- Using OK call up the channel list,
- Using select a channel,
- Using OK twice, call up channel and close channel list

I want to listen to the radio ...

- Using TV/R (blue) change to the radio mode

- Using VOL + VOL - increase and decrease the volume
- Using + P - switch channels
- Using i display and hide again additional channel information
- Using mute the audio

- Using 0 ... 9 wxyz enter the channel number directly

- Using OK call up the channel list,
- Using select a channel,
- Using OK twice, call up channel and close channel list

- Using TV/R (blue) change back to the TV mode

I want to see teletext ...

- Using TEXT call up teletext

- Using 0 ... 9 wxyz enter the required page directly

or

- Using ◄ ► page forward/backward

- Using TEXT or BACK return to TV

Editing and selection options in the menus

On some menus/on-screen displays the related views/selections have specific colour backgrounds. The colours assigned to the buttons are shown in the table below. Where the functions of these buttons are assigned for the current menu/view, they are also shown in the line at the bottom of the on-screen display.

	Colour	Button on the remote control
	Green	PIP
	Yellow	OPT
	Red	FAV
	Blue	TV/R

Tip!

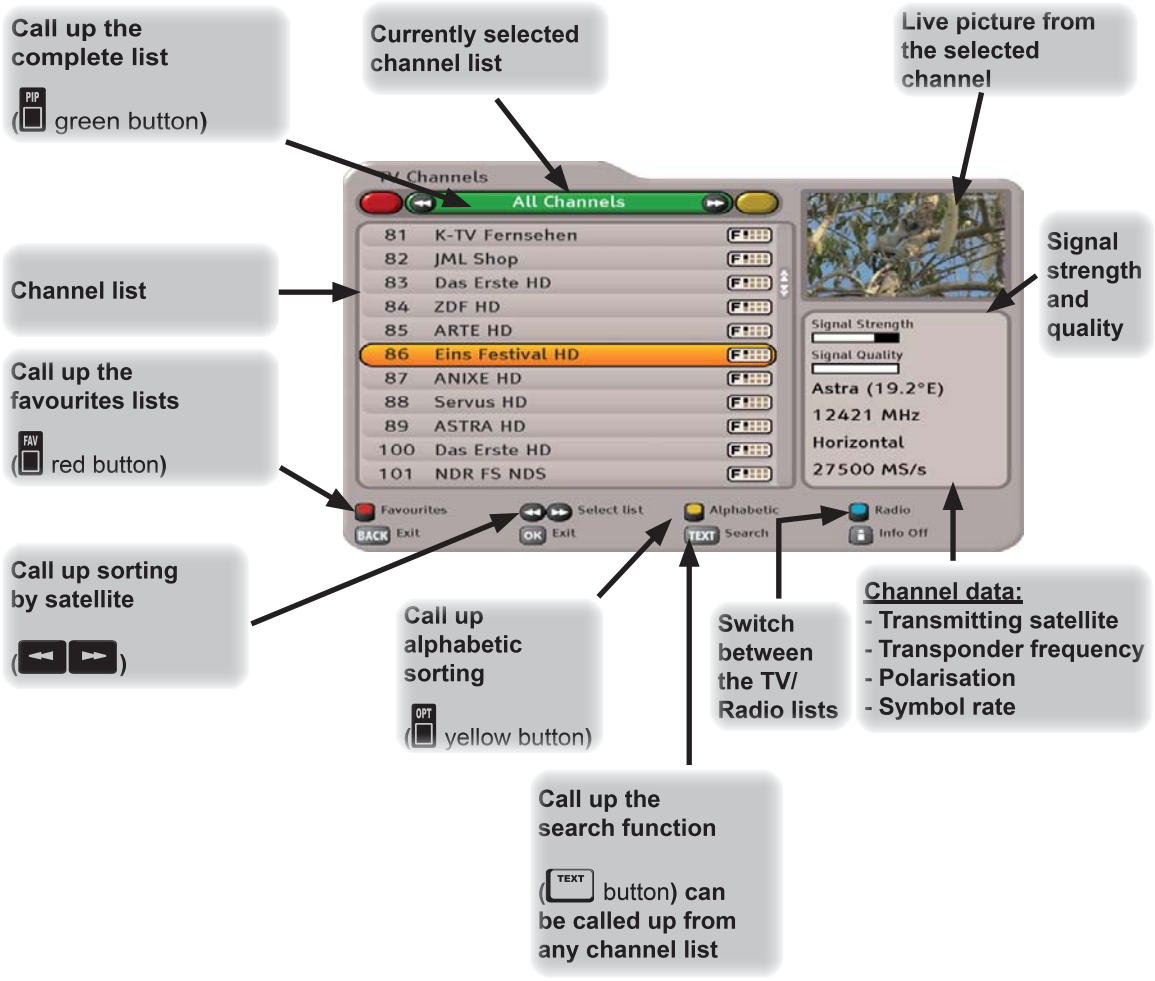
Always pay attention to the bar at the bottom of the on-screen display. This provides information on what to do next.

Tip!

In many menus, all the editing and selection options for that menu are shown at the bottom of the on-screen display. Where a specific remote control button is required for executing them or calling them up, this also will be shown (see example screenshot above).

Channel selection from the channel list

Press the OK button to open the channel list. The following on-screen display appears:



Information on selecting favourites lists:

You can also call up the favourites lists directly from TV screen, using the FAV (red) button. Then use the ◄◄ ►► buttons to select the desired favourites list. The desired channel is selected using the cursor (▲▼◄►) buttons and confirmed using the OK button.

Now use the respective coloured button to select the category in which you wish to open a channel list:

FAV (red) button: Call up the "Favourites" category

Contains the following channel lists:
- Favourites lists 1-4

PIP (green) button: Call up the "All Channels" category

Contains the following channel lists:
- Complete list
- Channel lists sorted by satellite

OPT (yellow) button: Call up the alphabetically ordered lists

Contains the following channel lists:
- A-Z
- Z-A
- 0-9
- Ordered by individual letters

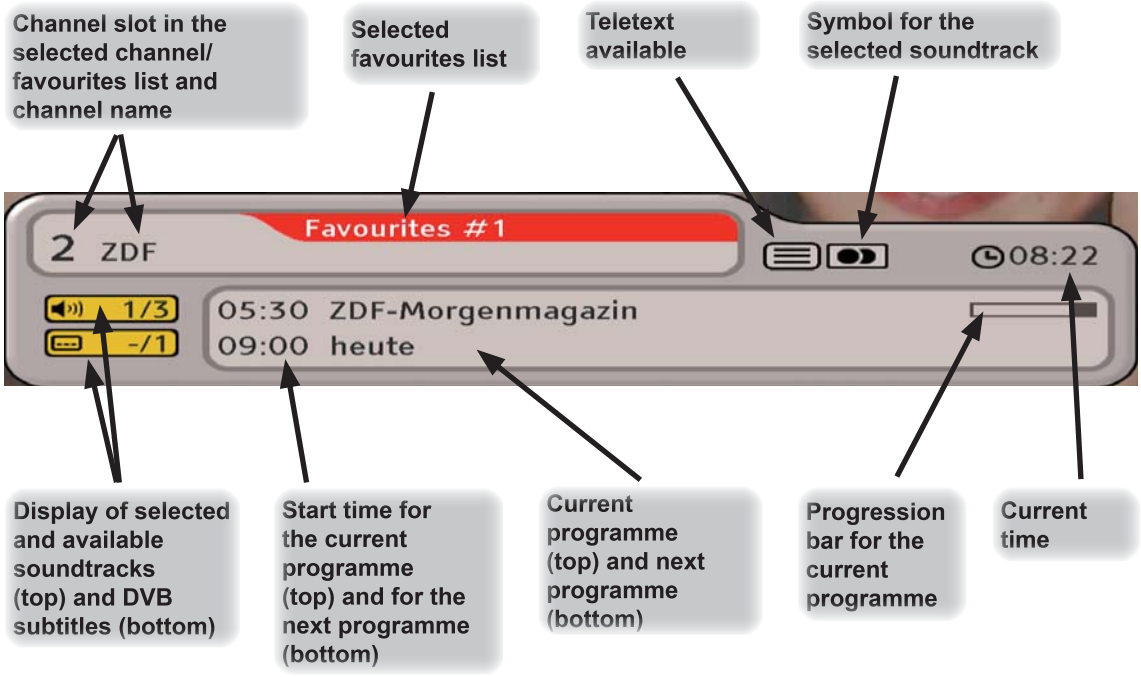
Channel list selection:

Use the ◄◄ ►► buttons to scroll through the currently available channel lists.

Select the channel:
After selecting the desired channel list, the desired channel is selected using the cursor (▲▼◄►) buttons and called up using the OK button. To exit the channel list and return to the TV picture, press the OK button again, or press the BACK button.

Channel Information

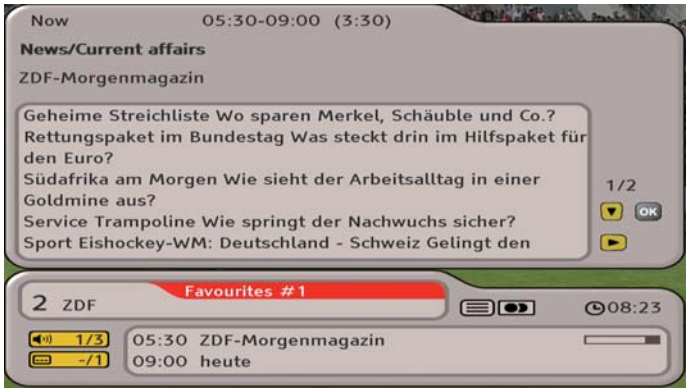
The channel info banner is shown for a few seconds each time the channel is changed (can be changed under “Settings”, “Menu Settings”). However you can call up the banner again at any time using the button.


Channel slot in the selected channel/ favourites list and channel name
Selected favourites list
Teletext available
Symbol for the selected soundtrack
2 ZDF
Favourites #1
08:22
1/3
-/1
05:30 ZDF-Morgenmagazin
09:00 heute
Display of selected and available soundtracks (top) and DVB subtitles (bottom)
Start time for the current programme (top) and for the next programme (bottom)
Current programme (top) and next programme (bottom)
Progression bar for the current programme
Current time

The following icons (symbols) may appear in the channel info banner:

	Teletext is available		Audio selection is: Stereo
-/1	Subtitles selected/number of subtitles available	4:3	Programme broadcast in 4:3 format
1/3	Soundtrack selected/number of soundtracks available	1/9	Portal channel selected/ number of channel options
	Dolby Digital soundtrack selected		

By pressing the [i] button again or pressing it twice from the TV picture, you can display further additional information, if provided by the channel provider, on the current programme (see example screenshot on the right).



If, as in the example above, more than one page of text is available (1/2), you can display the second page with the aid of the [OK] button or the [▼] button. Using the [▶] button, you can also see, if available, the additional information on the next programme.

Using the [i] button or the [BACK] button you can leave the additional information and/or the program info banner and return to the TV picture.

Calling up the channel options

Portal channels bundle together several channel options. After selecting the portal channel press the [OPT] (yellow) button. The following on-screen display appears (example):

Use the [▲][▼] buttons to select your desired channel option, and press the [OK] button to confirm your selection.

Audio Selection

Press the OPT (yellow) button (twice in case of a portal channel). The following on-screen display appears (example):

Use the cursor (▲▼◀▶) buttons to select your desired soundtrack option, and press the OK button to confirm your selection.

Subtitles Selection

If the channel banner includes the following symbol for subtitles -/1, you can call up the “Subtitle” function as follows: Press the OPT (yellow) button twice. The following on-screen display appears (example):

Use the ▲▼ buttons to select the desired subtitles and confirm by pressing the OK button. The receiver will automatically return to the TV picture.

Teletext

This symbol in the channel information shows you whether teletext is available for the selected channel.

When you press the TEXT button, the receiver processes the teletext service data for your TV set to display, even when the signal is encrypted.

During the search, the page which is being searched for is displayed in the top left-hand corner with the time and date displayed at the top right. When the search is finished, the teletext broadcast by the relevant encrypted channel provider appears:

You have several options for calling up the desired pages:

- Entry using the number pad
- Scroll backwards and forwards using the ◄ ► buttons
- Scroll up and down in the sub-pages (e.g. 1/2 and 2/2) using the ◄◄ ►► buttons

100 100 ZDFtext Do 29.04.10 16:08:01
Mit dem Zweiten sieht man besser
Wind dreht: öl treibt an US-Küste 120
Köhler wettert gegen Spekulanten 123
Ansbach:Neun Jahre für Amokläufer 127
ADAC: Deutsche Autos zuverlässig 142
VfL Bochum feuert Coach Herrlich 211
Schalke holt Jendrisek vom FCK . . 212
BMW kehrt 2012 in die DTM zurück 213
16.00 heute – in Europa 316
16.15 Hanna – Folge deinem 317
Hanna: So geht es weiter 368
Gesund und sicher grillen 501
Elton wird ZDF-Moderator 801

- ■■ button teletext is displayed transparent
- ● button teletext font size
- ■ button teletext search is stopped

If you press the TEXT button again, the teletext is displayed transparent.

Press the BACK button to exit teletext.

Electronic Programme Guide (EPG)

General information on the programme guide

What is the electronic programme guide:

The electronic programme guide (in the following section referred to as the EPG for short) provides all programme information free of charge (EPG data) and informs you up to a week in advance. However, this programme information must be broadcast by the related channel provider.
If no EPG data are available the receiver, instead of showing information on the current program, shows the message “No information available”.

EPG data update

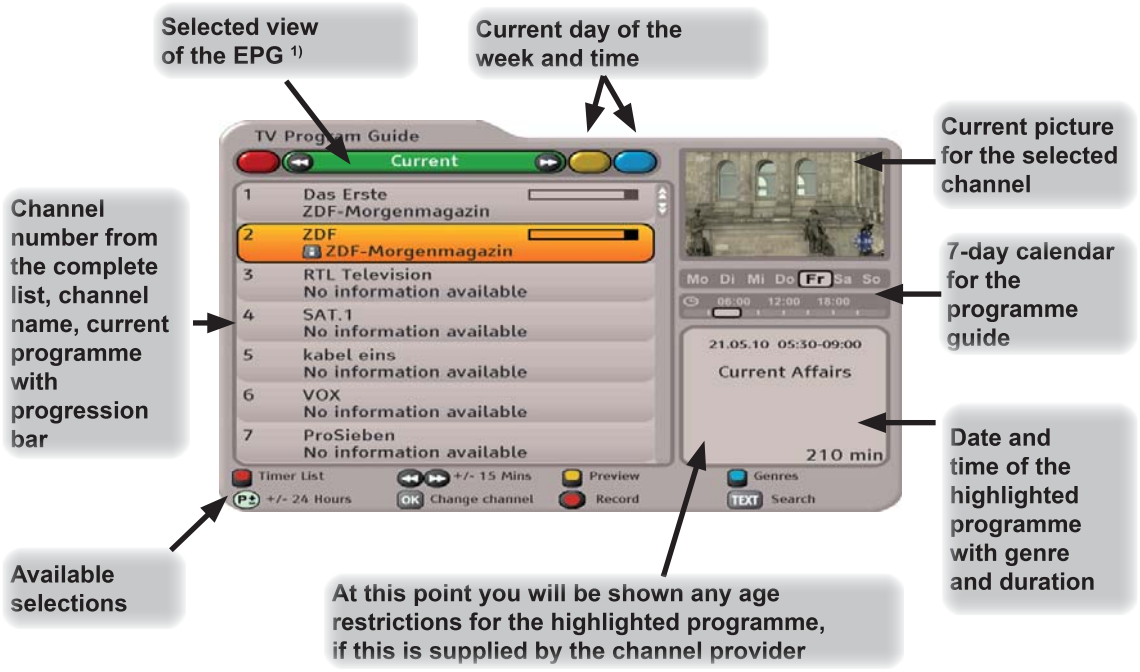
The EPG data for the currently selected channel are updated automatically in the background while you are watching a TV channel.

The EPG data is not available immediately after first installation. The EPG data will only be updated when a channel is watched.

Electronic Programme Guide (EPG)

Calling up the EPG

The EPG is called up by pressing the EPG button. Each time the EPG is called up, you will automatically be shown the “Current” view (green) - irrespective of which view you had set the last time you exited the EPG. The following on-screen display appears (example):



1)	Colour	Button on the remote control	View
	Green	PIP	Currently showing
	Yellow	OPT	Programme preview
	Red	FAV	Timer list
	Blue	TV/R	Genres

Navigation in the EPG (remote control buttons in the EPG)

FAV (red) button	Call up the timer list (display of all pre-programmed recordings)
◄◄ ►► buttons	Navigation in the individual views (e.g. 15 minutes skip forward in the “Current” view)
OPT (yellow) button	Call up a preview of the currently selected channel (Program guide)
TV/R (blue) button	Call up the genres overview
+ − button	(P+) jump forwards 24 hours in the EPG, (P-) jump backwards 24 hours in the EPG (e.g. in “Current” and in “Preview”)
● (red dot) button	Add a programme to the recording settings
i button	Shows any further information on the selected programme
BACK, EPG, buttons	Press one of these buttons in the “Preview” or “Current view” to close the EPG and display the selected programme on the TV screen

Navigation within each view is always performed using the cursor ( ) buttons. The ▲ ▼ buttons allow you to select individual channels/ programs, and the ◄ ► buttons allow you to scroll from page to page in the currently selected list.

Pressing the EPG or BACK button exits the EPG and returns to the TV picture.

Views using the EPG

“Current” View

The “Current” view can be called up at any time in EPG by pressing the PIP (green) button.

In the “Current” view you can see all channels displayed in the order of the complete channel list. Provided that EPG data has been supplied by the channel provider, the receiver shows for each channel the current program being shown, with start time, finish time, and progression bar.

You can use the cursor ( ) buttons to select the desired programme and if available you can use the i button to call up further information on the desired programme.

If you wish to view the programme currently being shown on a channel, you need not exit the EPG, just select the desired channel. At the top right of the screen you will see the current TV picture for the selected channel.

The ► button allows you to look ahead in 15 minute steps to future programmes on the channels (press the ◄ button to return to the current time).

Electronic Programme Guide (EPG)

“Preview” View (Program guide)

The “Preview” view can be called up at any time in EPG by pressing the OPT (yellow) button.

In the “Preview” view you can see the programs for the currently selected channel. Provided that EPG data has been supplied/transmitted by the channel provider, the receiver displays the programme lists for one week in advance.

You can use the cursor ( ) buttons to select the desired programme and, if available, you can use the i button to open further information on the desired programme.

You can use the ◄◄ ►► buttons to scroll through the programmes in the order of the complete list of programmes; you remain however in the preview.

The + − button allows you to scroll backwards and forwards a day at a time.

Using the ● (red dot) button you can copy the selected programme to the recording settings (see the “Recording settings” item).

Timer List View

The “Timer List” can be called up at any time in EPG by pressing the FAV (red) button.

You will find a detailed explanation of the timer list in this chapter in the section “Recording settings”, “Timer list”.

Genres view (movies, series ...)

The “Genres” view can be called up at any time in EPG by pressing the TV/R (blue) button.

In the “Genres view” you can display the programmes sorted by genre. Provided that EPG data has been supplied by the channel provider, the receiver sorts the programme into the existing categories. The following genres are available:

Movies, Series, Sport, Children’s programs, Entertainment, Current affairs, Reportage, Art & Culture, Education, Music, Leisure and Adult programs.

You can select the required genre using the ◄◄ ►► buttons.

You can use the cursor (▲▼◄►) buttons to select the desired programme in the genre and, if available, you can use the i button to open further information on the desired programme.

Using the ● (red dot) button you can copy the selected programme to the recording settings (see the “Recording settings” item).

Recording settings (programming the timer)

The (red dot) button allows you to set a programme for recording at any time. The programme to be recorded can be selected in any of the EPG views, provided the (red dot) button appears at the bottom of the on-screen display.

If the programme appears on the EPG:

Select the desired programme and press the (red dot) button. The following on-screen display appears (see example screenshot on the right):

TV Program Guide
21.05.10 ZDF HD 12:15-13:00
drehscheibe Deutschland
Current Affairs
Repeat Once Only
Date May Fri 21 2010
Start 12 : 15
End 13 : 00
Apply OK
If needed, select the interval between showings of the programme you wish to view or record. Press <OK> to confirm.
BACK Back

Use the buttons to select the desired recording mode. The following recording mode options are available:

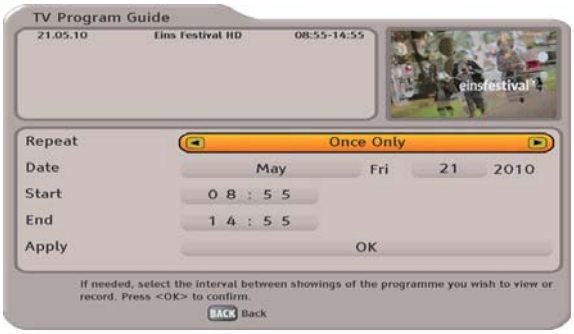
- Once Only: The recording will be performed once
- Daily: The recording will be performed daily at the time you specify
- Weekly: The recording will be performed once a week on the same day and at the same time
- Monday to Friday: The recording will be performed every week from Monday to Friday at the same time.

Use the cursor ( ) buttons to select the further items and use the number pad to complete the settings. When all settings have been made, switch to the “Apply” line and press the OK button to apply/save the recording settings. The receiver then automatically displays the timer list in which you can see the recordings you have planned (see section “Timer List”).

A maximum of eight timers can be programmed.

Programme not in EPG:

Select any programme on the channel on which the desired programme is to be broadcast at a later date, and press the ● (red dot) button. The following on-screen display appears (example):
As there is no EPG data, you must enter the data (date, start, end) manually.



Enter the data using the cursor (✥) buttons or the number pad. In addition, you can also change the duration of the recording. The receiver automatically adjusts the end time for the recording to the duration you have selected. Press the OK button to save your settings.

Recording "Once Only"

Use the ◄ ► buttons to select the "Once Only" recording mode (see screenshot on the right).

You can then use the ▲ ▼ buttons to select the individual fields. Make the settings using the number pad or the ◄ ► buttons.

When all settings have been made, switch to the "Apply" line and press the OK button to apply/save the recording settings. The receiver then automatically displays the timer list in which you can see the recordings you have planned (see section "Timer List").

Recording “Daily”

Use the ◄ ► buttons to select the “Daily” recording mode (see screenshot on the right).

You can then use the ▲ ▼ buttons to select the individual fields. Make the settings using the number pad or the ◄ ► buttons.

When all settings have been made, switch to the “Apply” line and press the OK button to apply/save the recording settings. The receiver then automatically displays the timer list in which you can see the recordings you have planned (see section “Timer List”).

Recording “Weekly”

Note that the day of the week for the selected programme is included in the recording planning. Therefore before applying the recording settings using the OK button, select the program on the day of the week that in future you will wish to make the weekly recording.

You can then use the ▲ ▼ buttons to select the individual fields. Make the settings using the number pad or the ◄ ► buttons. When all settings have been made, switch to the “Apply” line and press the OK button to apply/save the recording settings. The receiver then automatically displays the timer list in which you can see the recordings you have planned (see section “Timer List”).

Recording “Monday to Friday”

Use the ◄ ► buttons to select the “Monday - Friday” recording mode (see screenshot on the right).

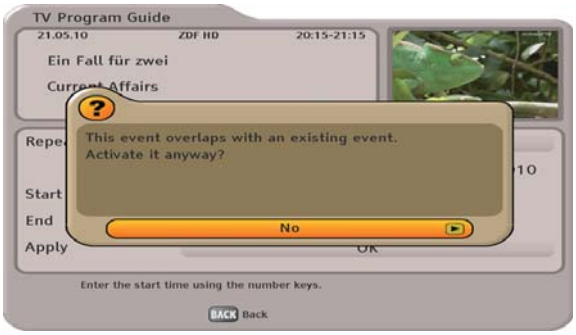
You can then use the ▲ ▼ buttons to select the individual fields. Make the settings using the number keys or the ◄ ► buttons.

When all settings have been made, switch to the “Apply” line and press the OK button to apply/save the recording settings. The receiver then automatically displays the timer list in which you can see the recordings you have planned (see section “Timer List”).

Overlapping recordings

If there is an overlap in the planning, the receiver will display the warning shown on the right as soon as you try to apply the recording settings.

Using the ◄ ► buttons select whether you want to discard the recording settings (select “No”) or whether you still want to plan the recording (select “Yes”). If you save the recording despite an overlap, you must then delete one of the two overlapping recordings in the timer list (see Timer List).



Timer List

The “Timer List” view can be called up at any time in EPG by pressing the FAV (red) button. The following on-screen display appears (example):

The “Timer List” view shows you all the recordings that are scheduled.

The cursor ( ) buttons allow you to select a recording. Using the OK button you can revise the recording settings again. Make the settings as described for the related type of recording.

The ● (red dot) button allows you to delete a recording that had been scheduled.

Calling up the main menu and introduction

The main menu is called up by pressing the MENU button. The following on-screen display appears:

The programme showing on the currently selected channel always appears in the top right-hand corner of the main menu.

The selected menus, sub-menus and items, and also the parameters to be set, are each marked in colour.

Tip! **Always pay attention to the bar at the bottom of the on-screen display. This provides information on what to do next.** Tip!

The sub-menus are selected using the ▲▼ buttons and called up using the OK button. Use the ▲▼ buttons also to select the sub-menu items. The settings of the various parameters in the individual items are performed using the ◄► buttons or the number pad.

The main menu and sub-menus can be exited step-by-step using the BACK button. Press the MENU button to return directly from one of the menus to the TV picture.

Main Menu

(call up by pressing the MENU button)

Edit Channel List	Search for Channels	Security	Box Settings	Service Menu	Lan-guage
Favourites 1	Standard Channel Search		Video Settings	Sat Finder	
Favourites 2	Automatic Search		Audio Settings	Channel Information	
Favourites 3	Advanced Channel Search		Menu Settings	Smartcard	
Favourites 4			General Information	PIN Change	
All Channels			CA Module	System Information	
			LNB Settings	Restore Factory Settings	

Main Menu - Edit Channel List

Calling up the “Edit Channel List” menu

Select the “Edit Channel List” menu using the MENU button, the ▲▼ buttons in the main menu and OK.

All changes to the channel lists and favourites lists which you can make as described in the following chapter are not saved by the receiver unless, when you exit the menu by pressing the BACK button, you answer “Yes” to the question “Changes have been ... ... save changes?”, using the OK button. If you give the answer “No”, all the settings/changes you made will not be saved and the menu left. If you select “Cancel” and confirm using the OK button, you will remain in the previously selected menu and can make further settings/changes if necessary.

Editing channel list

Editing TV or radio channel lists

Using the TV/R (blue) button you can select whether you want to edit TV or radio channel lists (or favourites lists). The editing of channel lists/favourites lists is identical.

Pre-sorting complete channel list (filtering)

Before you start to edit the channel lists, you can have the receiver pre-sort the complete channel list by specific criteria. If you want pre-sorting, press the OPT (yellow) button. The following on-screen display appears:

You can now use the following sort options (select and set using the cursor ( ) buttons):

- Satellite: "All" or select one of the satellites received
- Channels: "All", "Only free-to-air channels" or "Only encrypted channels"
- Filter by: "No additional filter" or "New channels"
- Sorting: "Number", "A-Z", "Z-A" or Service ID

Once you have made all the settings, switch to the "OK" line and confirm the sorting process using the OK button. The on-screen display is closed automatically by the receiver.

Moving a channel

If you want to move a channel to a favourites list, first select the right column (Favourites) using the ◄◄ ►► buttons and then the required favourites list using the FAV (red) button.

Using the cursor ( ) buttons select the channel in the complete channel list (left column) or a previously selected favourites list (right column) that you want to move to another position. Then press the OK button. The channel name is marked in "bold" and indented a little from the left edge. Now select the new position using the cursor ( ) buttons and then confirm the insertion at the

position marked using the OK button.

Press the BACK button to exit the menu again.

Adding channel to favourites list

Using the cursor ( ) buttons select the channel in the “Channels” list that you want to add to one of the favourites lists (see example screenshot on the right).

Using the FAV (red) button you can select between the four existing favourites lists.

Then press the ► button. The channel is copied to the selected favourites list.

Press the BACK button to exit the menu again.

Deleting channel or removing from favourites list

Channels deleted from the complete channel list (left column) cannot be restored and cannot only be found again with a renewed channel search.

Channels deleted from a favourites list (right column) remain in the complete channel list and are only deleted from the selected favourites list.

If you want to delete a channel from a favourites list, first select the right column (Favourites) using the ◄ ► buttons and then the required favourites list using the FAV (red) button.

Using the cursor (✥) buttons select the channel in the complete channel list (left column) or a previously selected favourites list (right column) that you want to delete. Then press the ■ button. The channel is deleted.

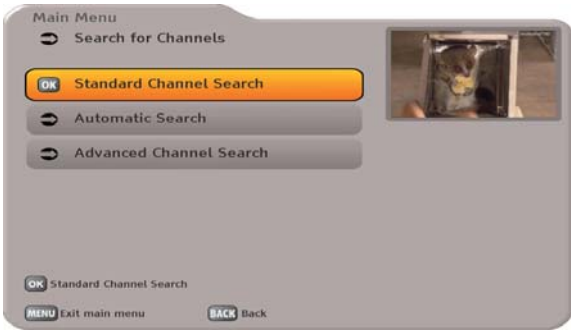
Press the BACK button to exit the menu again.

Main Menu - Search for Channels

After calling up the menu you will see the following on-screen display:

You have three different search options:

- Standard Channel Search
- Automatic Channel Search
- Advanced Channel Search



Use the ▲ ▼ buttons to select the desired search type and confirm your selection using the OK button.

Standard Channel Search	The channel list currently set is updated
Automatic Search	All transponders for the satellite you selected will be searched
Advanced Channel Search	Only the selected transponder for the satellite you selected will be searched

Tip!

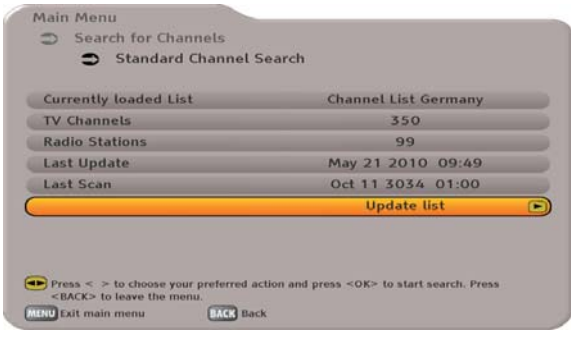
After a search (of whatever type) the receiver shows all newly found channels in the channel list under the heading “New Channels”.
You will find this rubric in the channel list at the end of the green complete list (select using the ◄◄ ►► buttons).

The channel list is called up on to the TV screen by pressing the OK button (see also section “Basic Functions”, “Channel selection from the channel list”).

Tip!

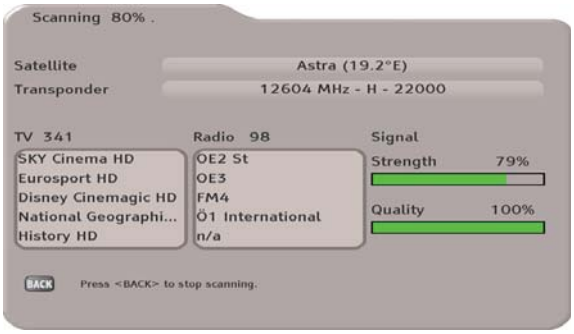
Standard Channel Search

After calling up the menu you will see the following on-screen display:



Press the OK button to start updating the list selected above.

The list you selected previously is updated by the receiver. After the update confirm the receiver message displayed using the OK button. The receiver jumps back to the Search for Channels menu. Press the BACK button to exit the menu again.



Automatic Search

After calling up the menu you will see the following on-screen display:

The ▲▼ buttons allow you to select different sets of parameters for the search.

Satellite

Select the satellites to be searched using the ◄► buttons or select the setting “All”. If “All” is selected, all the satellites you have selected in “LNB Settings” will be searched. Make sure your reception system is aligned to the selected satellite(s).

Channels to search for

Use the ◄► buttons to select the type of channels that are to be searched for. You have three options:

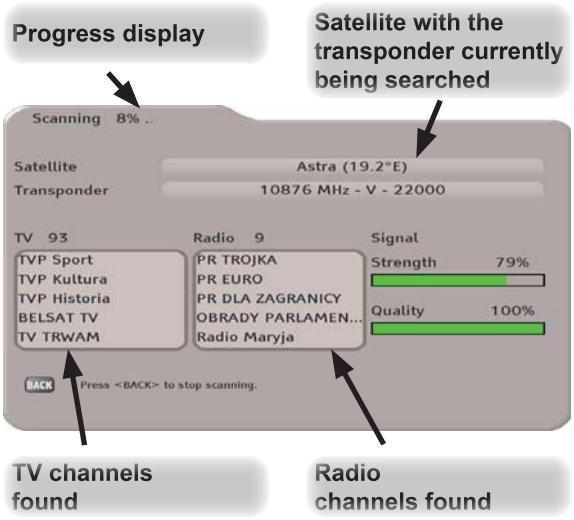
- “All” All channels are searched for
- “Only free-to-air channels” Only free-to-air channels are searched for
- “Only encrypted channels” Only encrypted channels are searched for

To view encrypted channels you need an appropriate CA (Conditional Access) module and a valid smart card together with a valid subscription to the relevant Pay TV provider.

Then use the ▲▼ buttons to switch to the field “Press <OK> to start scanning for all channels”. Pressing the OK button starts the search.

During the search you will see the following on-screen display (example):

Note:
You can cancel the search at any time by pressing the BACK *button.*



After completion of the search, you will see the following on-screen display (example):

You can now select the following options (using the ◄ ► buttons):

- "Yes, add new channels"

  The new channels are added to the existing channel list

- "Yes, replace old channel list"

  The channel list currently used will be replaced with the channels found

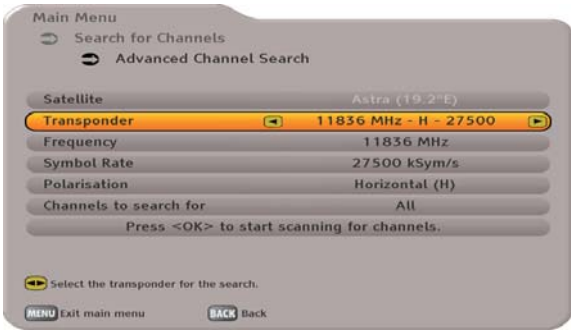
- "No, discard new channels"

  The new channels found are not saved

Confirm your selection with the OK button. The receiver then jumps back to the Search for Channels menu. Press the BACK button to exit the menu again.

Advanced Channel Search

After calling up the menu you will see the following on-screen display:



The ▲ ▼ buttons allow you to select different sets of parameters for the search.

In this menu you can selectively search a transponder for the new channels.

Satellite

Use the ◄ ► buttons to select the satellite on which the transponder you want to search is located. Make sure your reception system is aligned to this/these selected satellite(s). If you want search several transponders on a satellite, you should use an automatic channel search on the transmitting satellites or set the option “Standard Channel Search” on this menu to “Yes”.

Transponder

Use the ◄ ► buttons (transponder frequency already saved) or the number pad (transponder frequency not yet saved) to select the transponder frequency on which the channel being sought is transmitted.

The “Polarisation” and “Symbol Rate” options only need to be specified if the transponder has yet to be saved.

Symbol Rate

Use the number pad to enter the related symbol rate.

Polarisation

Press the ◄ ► buttons to select the correct polarisation (horizontal or vertical).

Standard Channel Search

Select using the ◄ ► buttons whether you also want to undertake a standard channel search. With the setting “Yes” first the transponder selected above is searched and then all transponders on the satellite selected above. With the setting “No” only the transponder selected above on the selected satellite is searched.

Channels to search for

Use the ◄ ► buttons to select the type of channels that are to be searched for. You have three options:

- "All" All channels are searched for
- "Only free-to-air channels" Only free-to-air channels are searched for
- "Only encrypted channels" Only encrypted channels are searched for

To view encrypted channels you need an appropriate CA (Conditional Access) module and a valid smart card together with a valid subscription to the relevant Pay TV provider.

Then use the ▲ ▼ buttons to switch to the field "Press <OK> to start scanning for all channels". Pressing the OK button starts the search.

The subsequent on-screen displays during the search are identical to those for the automatic search.

After completion of the search, you will see the following on-screen display (example):

You can now select the following options (using the ◄ ► buttons):

- "Yes, add new channels"

  The new channels are added to the existing channel list

- "Yes, replace old channel list"

  The channel list currently used will be replaced with the channels found

- "No, discard new channels"

  The new channels found are not saved

Confirm your selection with the OK button. The receiver then jumps back to the Search for Channels menu. Press the BACK button to exit the menu again.

Main Menu - Security

After calling up the menu you will see the following on-screen display:

In order to access this menu, you must enter the four-digit PIN code (factory setting: “0000”).

The following on-screen display then appears:

In this menu you can set various restrictions/parental controls.
The individual items are selected using the ▲ ▼ buttons. The changes to the current settings can be performed using the ◄ ► buttons or the number pad.

Receiver Lock

Select here whether the receiver should be locked. If the receiver is locked, the four-digit PIN code will be requested when it is switched on. Without the four-digit PIN code (factory setting: “0000”), the receiver cannot be operated. Either

- On or
- Off

Menu Lock

Select here whether the main menu should be locked. If the main menu is locked, the four-digit PIN code will be requested when it is called up. Without the four-digit PIN code (factory setting: “0000”), the main menu cannot be viewed and no changes can be made to the device settings. Either

- On or
- Off

Change Device-PIN

Confirm the selection with the OK button. Using the number pad enter your current device PIN (factory setting: 0000) and confirm using the OK button. Then using the number pad enter your new four-digit device PIN and also confirm using the OK button. Confirm the new device PIN by entering

it again and confirming again using the OK button.

To save your new PIN code confirm the message displayed by pressing the OK button.

Your device PIN code has now been changed.

Keep your four-digit device PIN in a safe place, so that you always have access to your channels should you ever forget it.

If you have forgotten your device PIN, you must contact your dealer, who will be able to unlock your receiver for you.

Main Menu - Settings

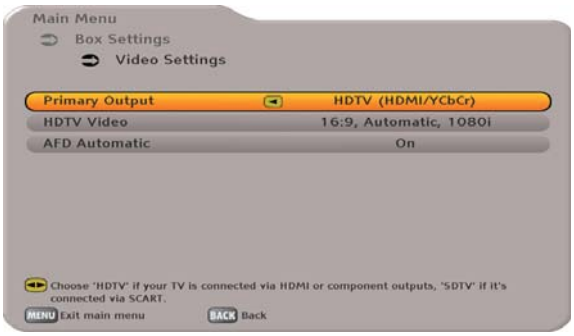
After calling up the menu you will see the following on-screen display:

Use the ▲▼ buttons to select the desired menu and confirm your selection using the OK button.

Video Settings

After calling up the menu you will see the following on-screen display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be made using the ◄► buttons.



Use the ✥ buttons here to select the settings for your TV set.

When doing this, refer to the operating instructions for your TV set!

Primary Output
Select here the connection on the receiver to which you have connected your television.

Either:

HDMI or **SCART**

AFD Automatic

The video format may differ from the format to be displayed. AFD detects this situation and corrects the display if the setting “On” is selected.

Video Settings

To be able to make these settings, switch to the Video Settings line and then press the OK button. The following on-screen display appears:

HDMI or **SCART**

Picture Format

Here you can select the TV picture format. Either:

- 4:3 or
- 16:9

Picture Scaling

Select the type of screen display, depending on your setting for the picture format:

- TV aspect ratio “4:3”: Pan & Scan or Letterbox
- TV aspect ratio “16:9”: Always 16:9 or Automatic

Native Resolution

With the setting “On” the resolution broadcast is sent to the TV set connected. With the setting “Off” the resolution is adjusted to the setting “HD Video Resolution” (setting made on the next line).

HD Video Resolution

Here you can select the video resolution that will be sent to your TV set. Either:

- 1080i (resolution 1920 x 1080, half-screen images)

Picture Format

Here you can select the TV picture format. Either:

- 4:3 or
- 16:9

Picture Scaling

Select the type of screen display, depending on your setting for the picture format:

- TV aspect ratio “4:3”: Pan & Scan or Letterbox
- TV aspect ratio “16:9”: Always 16:9 or Automatic

TV Output Format

Select the type of video signal at the TV Scart socket here. Select the signal that your TV set can process:

- Video FBAS – Colour video baseband signal
- RGB – Red/Green/Blue signal or
- S-video (Y/C) luminance/chrominance

- 720p (resolution 1280 x 720, full-screen images)
- 576p (resolution 720 x 576, full-screen images) or
- 576i (resolution 720 x 576, half-screen images - PAL)

HDCP Scrambling

Select here whether HDCP (digital copy protection) is to be constantly set to “Permanent” or is never to be activated “Never”. In addition you can select the setting “Automatic” (recommended setting). To view some channels (HD+) it is necessary for the setting to be “Permanent” or “Automatic”.

HDMI Audio

Select here whether the digital audio is to be transmitted via the HDMI interface.

HDMI-CEC

Using CEC (Consumer Electronics Control) the receiver can be operated using the remote control for the TV set. However, this function cannot be guaranteed, as it is also dependent on the remote control for the TV set and we cannot test all sets.

AV Control

Select here whether on switching off the receiver a signal is to be sent to switch off the TV set.

Audio Settings

After calling up the menu you will see the following on-screen display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be made using the ◄► buttons.

Audio Format

Select here the required audio format. Either:

- Stereo
- Mono (from the left channel)

- Mono (from the right channel) or
- Mono (total)

Multichannel-Audio Automatic

Select here, if multichannel audio is available (e. g. Dolby Digital), whether this multichannel audio is to be output automatically (setting “On”). The receiver may need to be connected to a Dolby Digital system or an AV amplifier for this purpose.

HDMI Audio

Select here whether the digital audio is to be transmitted via the HDMI interface.

Audio Delay

Here you can set an audio delay if the video and audio transmission are not synchronised. You can choose between the settings “None” and from 10ms in steps of 10 up to 300ms.

Menu Settings

After calling up the menu you will see the following on-screen display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be made using the ◄► buttons.

Info Banner Duration

Select here whether the info banner is to be displayed on a channel change and if so, for how long. Possible settings:

- None
- 1, 2, 3, 4, 5 .....15 seconds or
- Permanent

Info Banner Automatic

Select here whether the info banner is to be displayed not only on a channel change, but also on a programme change on a channel. You can only make this setting if the setting “Info Banner Duration” is set to four seconds or longer, or “Permanent”.

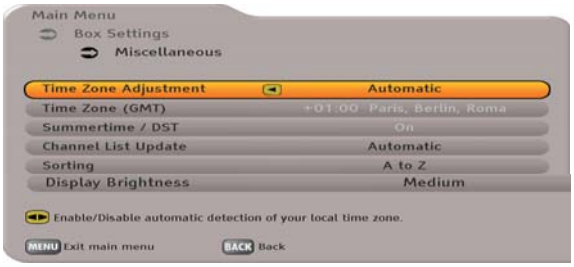
Menu Language

Select here the required menu language. Available options:

German, English, French, Italian, Spanish, Czech, Dutch and Turkish.

Miscellaneous

After calling up the menu you will see the following on-screen display:



The individual items are selected using the ▲▼ buttons. The changes to the current settings can be made using the ◄► buttons.

Time Zone Adjustment

Here you can select whether the local time offset to UTC (formerly GMT) (e.g. for Germany: + 1 hour) is to be automatically detected by the receiver (setting: “Automatic”) or whether you want to set the adjustment manually (setting: “Manual”). The setting for summer/winter time is then made automatically, or you must make the setting if “Manual” is selected.

Time Zone (GMT)

Select here the required time zone (e. g. for Germany: + 1 hour). You can make the setting in 1-hour steps or to some extent in 30-minute steps. The maximum offset is 12 hours (+ and -).

Summertime / DST

Here you can make the setting for summer time. Either

- On or
- Off (winter time)

Channel List Update

Select here whether the channel list is to be automatically maintained by the receiver in the standby mode.

Sorting

Select here whether the channel list is to always be sorted by the following criteria:

- None (channel list remains as it is)
- A-Z
- Z-A
- Service Provider
- Service ID

Display Brightness

Select here from the three available brightness settings for the receiver display. Select the setting you find easiest to read.

- High
- Medium
- Low

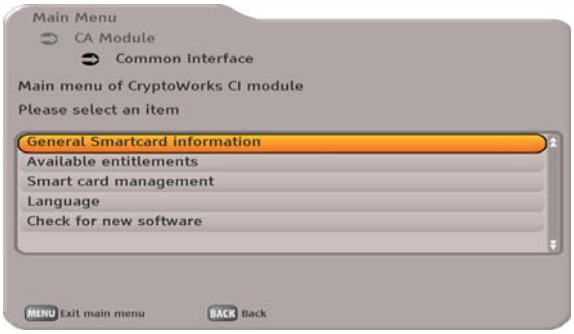
CA module

CI (Common Interface)

After calling up the menu you will see the following on-screen display (example):

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be performed using the ◄► buttons or the number pad.

Press the OK button to access the menu generated by the CA module:



From this menu, your card and your PIN code allow you to access various channels from your Pay-TV provider.
“CryptoWorks” has been selected as an example here. The details can be different for each CA module. Always follow the instructions supplied by your Pay TV provider!

Note: *The module on-screen displays may be shown in English, even if you have selected German as the menu language, because the menu is generated directly by the module!*

Tip!

Information for Conax, SECA, Viaccess and CryptoWorks users:

Note that with monthly activation intervals, the channel providers have different procedures for activating Pay TV cards. Activation may therefore be a few days before or after the beginning of a new month. During this activation period, the CA module and card must be in the slot, and the receiver must be turned on and set to the booked Pay TV channel. Follow the instructions from the Pay TV provider.

If your Pay TV card is then still not enabled, we recommend you briefly withdraw the CA module with the card out of the slot, with the receiver switched on, and then re-insert it.

This information has nothing to do with the properties of the receiver; it is merely intended to assist you.

Tip!

Common interface expert settings

Only users familiar with the CI should make changes using this menu.

After calling up the menu you will see the following on-screen display (example):

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be made using the ◄► buttons.

LNB Settings

See the section “Connection and Set-Up”, “First installation”.

Main Menu - Service Menu

After calling up the menu you will see the following on-screen display:

Use the ▲▼ buttons to select the desired menu and confirm your selection using the OK button.

Sat Finder

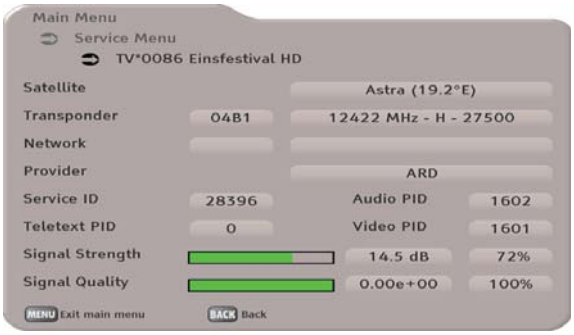
After calling up the menu you will see the following on-screen display:

If you do not have a meter for adjusting your reflector, you can use the sat finder as an alignment aid. You can select the different lines using the ▲▼ buttons. Make changes in the lines using the ◄► buttons (e. g. Transponder). Once you have a good reception signal (see example above), press the OK button in the “Quit” line.

Channel Information

After calling up the menu you will see the following on-screen display:

You cannot change or delete any data here.
This menu is merely for viewing the reception data for the currently selected channel.



Smartcard (HD+ Card)

After calling up the menu you will see the following on-screen display (example):

You cannot change or delete any data here.
This menu contains data on smart card reader fitted and data on the HD+ Card in the smart card reader.

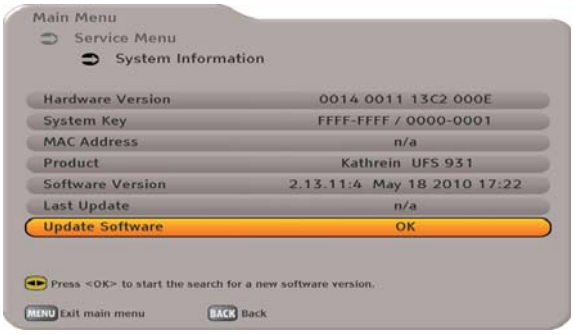
PIN Change (HD+ Card)

On this menu you can change your HD+ PIN. Please note that you are not allowed to use four digits that are the same (e. g. 1111). Keep your PIN in a safe place! If you have forgotten your PIN, please contact HD+ customer service. The entry is made using the number pad. Follow the on-screen displays/ instructions on the receiver to change your HD+ PIN.

System Information (Update Software)

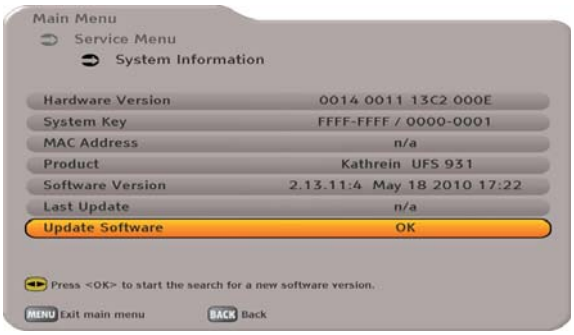
After calling up the menu you will see the following on-screen display (example):

In the “System Information” menu, the receiver displays information regarding its hardware and software versions.



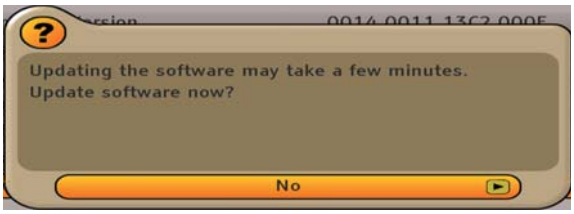
Update Software

To have the receiver search for new software, in the line “Update Software” press the OK button.


Main Menu
Service Menu
System Information
Hardware Version 0014 0011 13C2 000E
System Key FFFF-FFFF / 0000-0001
MAC Address n/a
Product Kathrein UFS 931
Software Version 2.13.11:4 May 18 2010 17:22
Last Update n/a
Update Software OK
Press <OK> to start the search for a new software version.
MENU Exit main menu
BACK Back

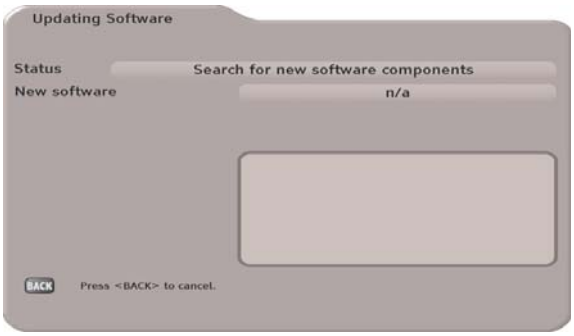
First the following on-screen display appears:

Use the ◄ ► buttons to select “Yes” and then press the OK button.



The following on-screen display appears:

The receiver will now searches for new software.



If no new software is available, the following is displayed:

“No new software for found for this receiver”

Press the OK button to confirm the displayed message. The receiver automatically jumps back to the “System Information” menu.

If new software is available, the following is displayed (example):

Press OK button to start the update process or the BACK button to leave the menu without updating the software.

After starting the update, you will see the following on-screen display:

Once the software has been completely downloaded, you will see the following on-screen display:

To save the new software, press the OK button. If you want to cancel the process, using the ◄ ► buttons first select “No” and then press the OK button.

After starting the update, you will see the following on-screen display:

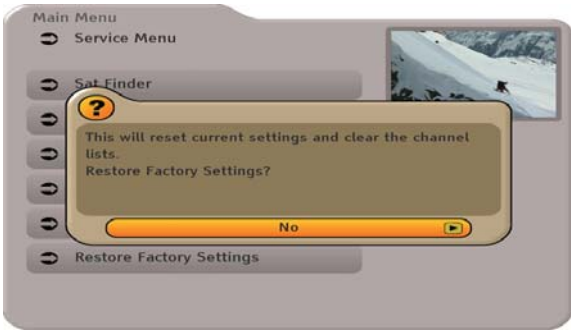
Updating Software
Status
Update in progress. Please wait...
New software
2.14 100%
Please wait...
Information UFS 931 vom 13.05.2010
Sehr geehrter Kunde,
die neue SW 2.13 ist verfügbar.
-Nicht erschrecken es ist nur ein Test
-allgemeine Stabilitätsverbesserung
Do not unplug the box! Do not use the remote control! Just wait for the box to restart automatically.

Follow all on-screen instructions!

Once the update is complete, the receiver is re-initialised and starts operation again. Never turn off the receiver during the update process, as otherwise you could lose the entire software. You would then need to re-install it in a workshop or using a PC and network cable. You can use the “System Information” on the Service Menu to check whether the new software has been installed. Check the time setting following a software update!

Restore Factory Settings

After calling up the menu you will see the following on-screen display:



Use the ◄ ► buttons to select the setting “Yes” and then press the OK button. All receiver settings are reset to their original settings.

After the reset, the receiver automatically restarts and you will see the first on-screen display for the first installation. After a factory reset you must undertake the first installation (see chapter “Connection and Set-Up”, “First installation”).

Main Menu - Language

After calling up the menu you will see the following on-screen display:

Select the line you want to change using the ▲ ▼ buttons. Make the changes using the ◄ ► buttons.

Menu Language:

Select the required language for the menus. Available options: German, English, French, Italian, Spanish, Czech, Dutch and Turkish.

First and second audio language:

Select here the required audio languages. Available options: German, English, French, Italian, Spanish, Czech, Dutch, Turkish, Portuguese, Polish, Swedish, Finnish, Danish, Norwegian, Slovakian, Catalan, Basque, Russian, Greek, Icelandic, Irish, Welsh, Gaelic, Sami, Croatian, Slovenian, Serbian, Bosnian, Macedonian, Hungarian, Rumanian, Bulgarian, Galician, Albanian, Ukrainian, Belarusian, Estonian, Latvian and Lithuanian.

First and second subtitle language:

Select here the required subtitle language. Available options: German, English, French, Italian, Spanish, Czech, Dutch, Turkish, Portuguese, Polish, Swedish, Finnish, Danish, Norwegian, Slovakian, Catalan, Basque, Russian, Greek, Icelandic, Irish, Welsh, Gaelic, Sami, Croatian, Slovenian, Serbian, Bosnian, Macedonian, Hungarian, Rumanian, Bulgarian, Galician, Albanian, Ukrainian, Belarusian, Estonian, Latvian and Lithuanian.

Subtitles Automatic:

Here you can set whether subtitles, if available, are displayed automatically or not.

To quit the menu and save the changes, press the BACK button.

Troubleshooting

In the event of a malfunction, first check all the cable connections and operating states:
1. Receiver and TV set power plugs are connected to wall socket
2. Antenna cables are connected to the receiver input
3. Receiver and TV set correctly connected by a HDMI or Scart cable
4. Audio connections are made to the Hi-Fi or Dolby Digital system as appropriate
5. Receiver and TV set (Hi-Fi/Dolby Digital system) are switched on (check power indicators)
6. Receiver is responding to remote control

A selection of troubleshooting tips is offered below.

Problem	Cause	Remedy
A “No signal!” warning appears on some or all channels		Consult an antenna specialist to have it checked and repaired as necessary. Check the settings made in the “Settings”, “Antenna & Satellite”, “Tuner Configuration” menu, and change them if necessary.
Remote control no longer responding	Batteries may be discharged	Check the batteries
	Remote control code has been changed inadvertently	By simultaneously pressing the Back button in conjunction with buttons on the number pad (1-8) the remote control code can be changed. Your receiver requires the remote control code “1”. For this purpose simultaneously press the “Back” and “1” buttons.
Wrong time being displayed	“Summer Time” setting wrong. An incorrect time was imported from the reception signal	On “Settings” - “Date and Time” menu check “Summer Time Enabled” and change as necessary. Use the power switch to switch the receiver off from the current channel, e.g. Das Erste or ZDF, wait 10 seconds and then switch it back on
The following channels cut out or “No or bad signal!” appears: DSF, Tele 5, HSE 24 and Sonnenklar TV	DECT telephones operate on the same frequency as these channels. Interference may occur due to inadequate level or poor shielding of cable	Consult your antenna specialist

Alphanumeric entries

For entries such as names of e.g. search expressions, use the keyboard displayed on the screen (see example screenshot).

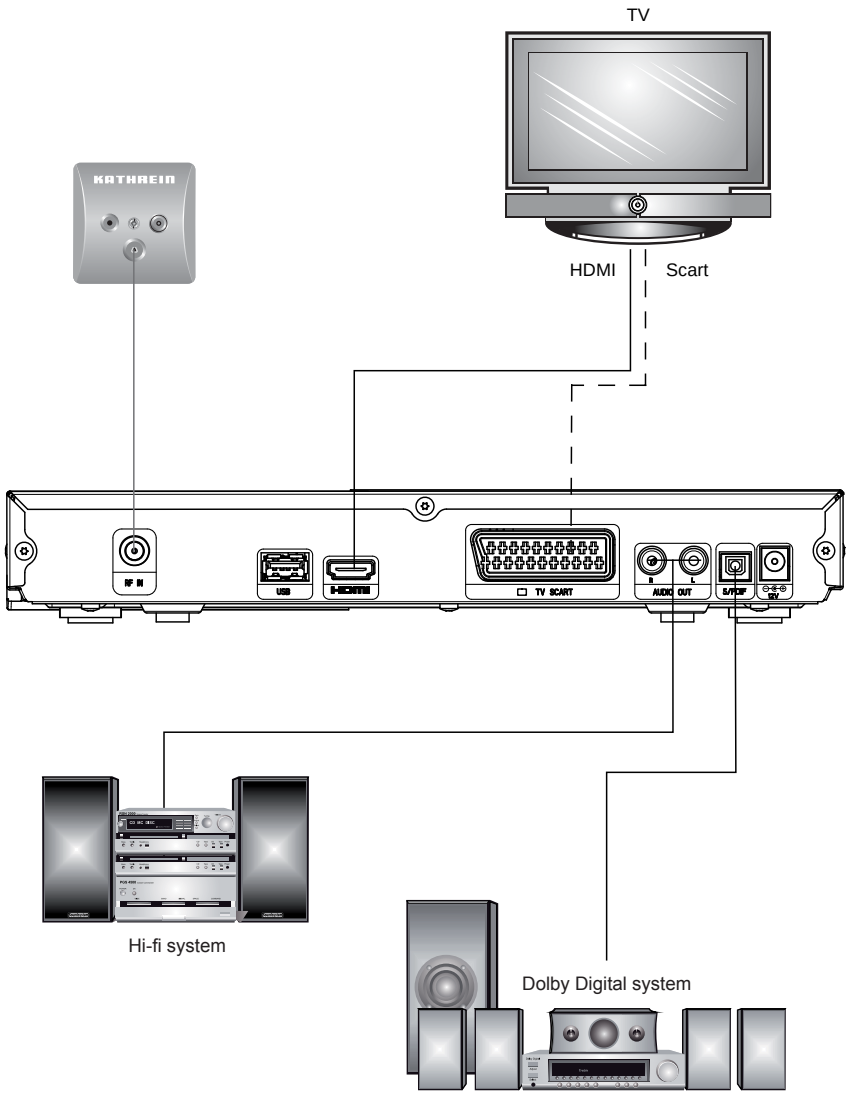
The letters assigned to the number pad also apply to your remote control. They are used very similarly to a mobile phone. The following buttons can be used for entry or to select an action:

Button	Assigned character/action				
Press	1 x	2 x	3 x	4 x	5 x
1 .,:@	.	ß	?	!	1
2 abc	a	b	c	2	ä
3 def	d	e	f	3	ë
4 ghi	g	h	i	4	ï
5 jkl	j	k	l	5	
6 mno	m	n	o	6	ö
7 pqrs	p	q	r	s	7
8 tuv	t	u	v	8	ü
9 wxyz	w	x	y	z	9
0 ␣	1 x space 2 x 0				
◄	Last character is deleted				
MENU	Switch between upper case and lower case letters				
OK	Confirm the term entered				

BACK	Cancel entry without saving
TEXT	Cancel entry without saving

After you have entered the desired expression, press the OK button in order to load the name/search expression BACK or the TEXT button to abort the entry.

Advanced connection example

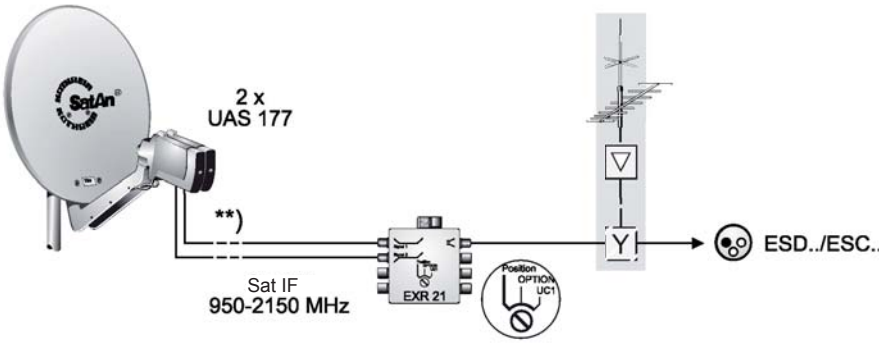


Technical specifications

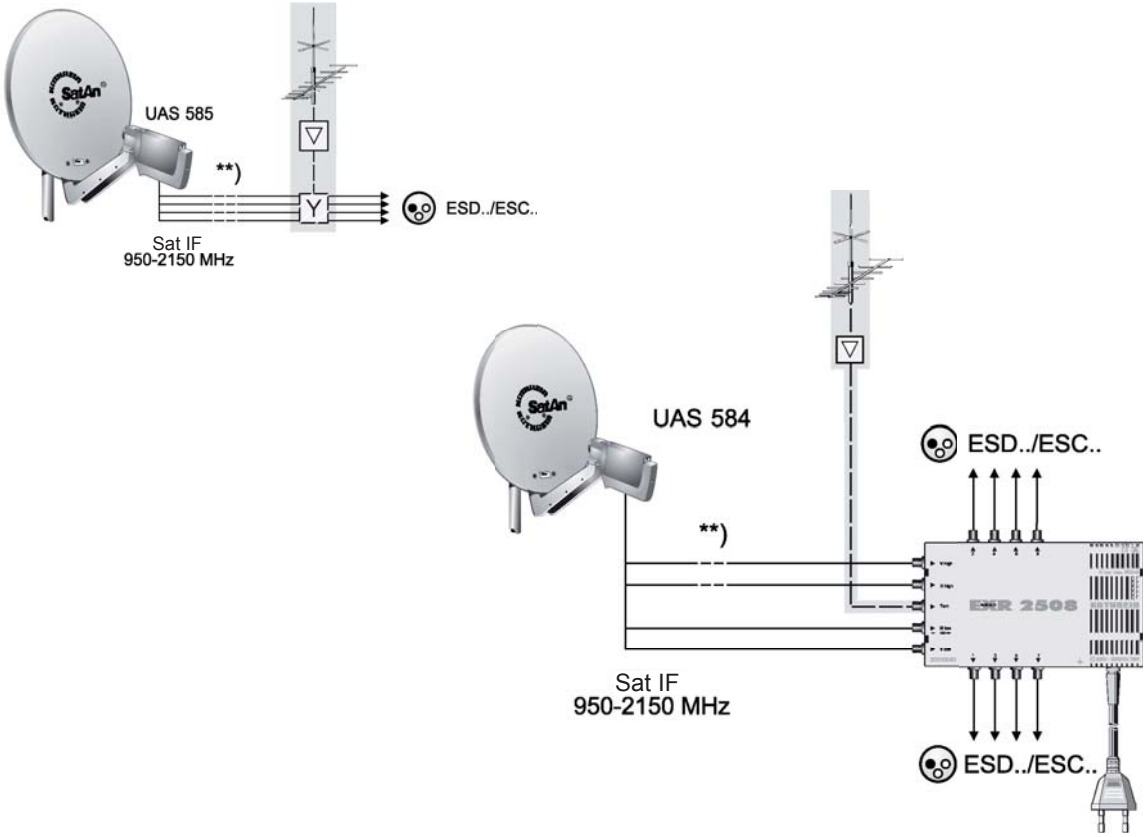
Type		UFS 931sw/HD+
Part no.		20210171
Colour		Black
RF section		
Sat IF band	MHz	950-2150
Input level band	dBµV	44-83
TV system, video		
Modulation, FEC, demultiplexer		DVB-S/DVB-S2 standard
Video resolution		CCIR 601 (720 x 576 lines), 576i, 576p, 720p, 1080i
Video decryption		MPEG-2, MPEG-4-compatible
Input data rate	MSymb/s	2-45, (30 for DVB-S2/8PSK)
S/N	dB	> 53
TV system, audio		
Decryption		AC 3, MPEG 1, layers 1 and 2
Sampling rate	kHz	32/44,1/48
S/N	dB	> 65
Power Supply		
Power supply voltage	V/Hz	230 (+/- 10 %)/50-60
DC	V	12
Power consumption (max./typ. operation/standby)	W	< 24/12/1
LNB supply (horiz./vert.)	V/mA	14/18; max. 400
Control signal	kHz	22; DiSEqC™1.0, SCR single cable system
Connections		
Sat IF input		1 x F socket
TV/VCR connection		1 x Scart socket
Video/audio output (digital)		1 x HDMI
Audio output (analogue)		2 x Cinch sockets
Audio output (digital)		Standard fibre-optic cable (SPDIF)
Data interface		
Common Interface/Encryption system		For 1 CA module/Nagravision
USB (for service purposes only)		1 x 2.0
Miscellaneous		
Ambient temperature	°C	Max. +5 to +40
Unit dimensions (W x H x D)	mm	270 x 34 x 167
Weight	kg	< 2

Sat IF connection examples

Single systems

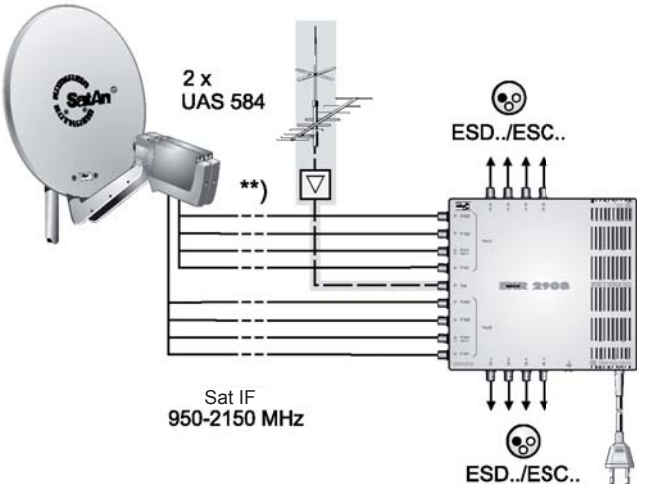


Community antenna network systems (4 x Sat IF)

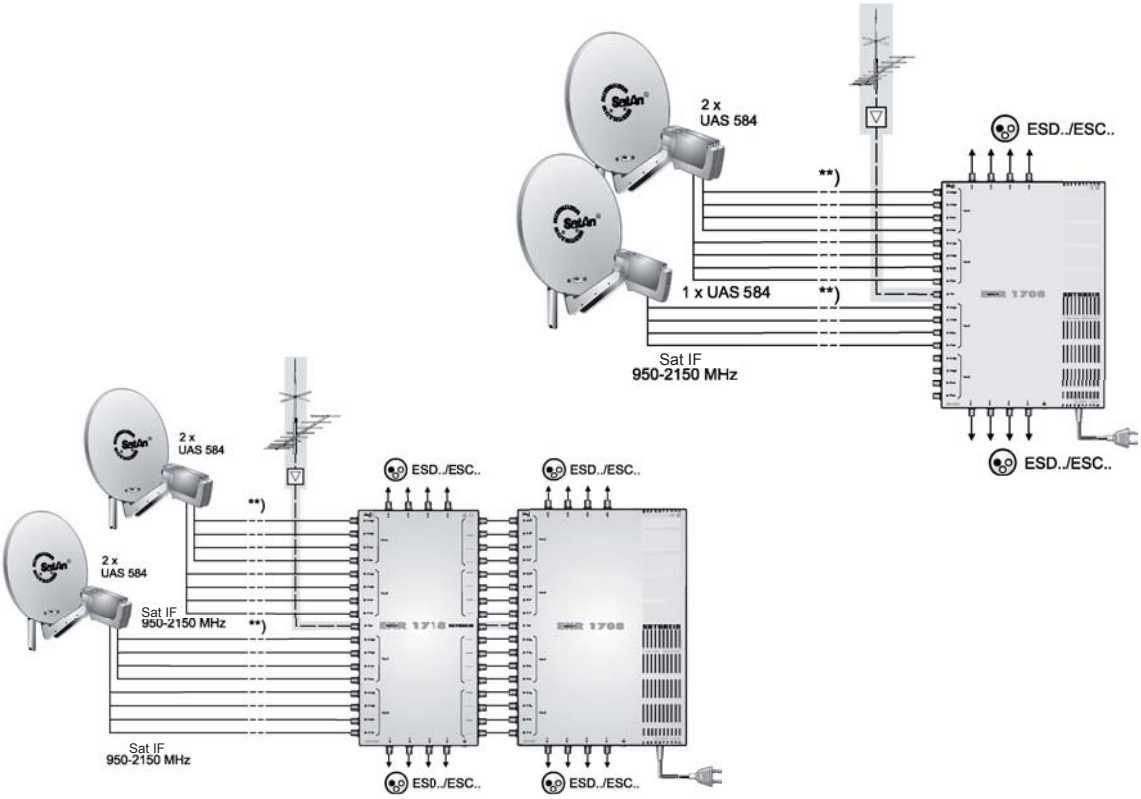


**) KAZ 11/KAZ 12 overvoltage protector

Community antenna network systems (8 x Sat IF), multi-feed

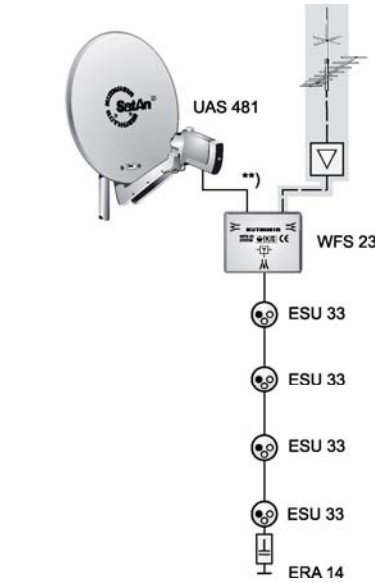


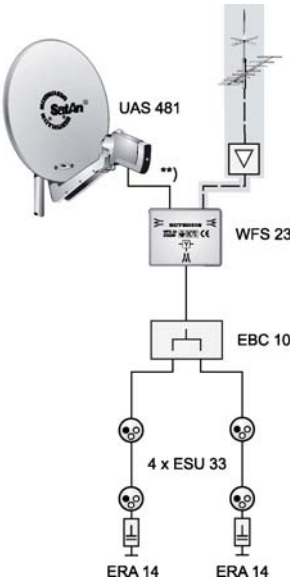
Community antenna network systems (16 x Sat IF), multi-feed

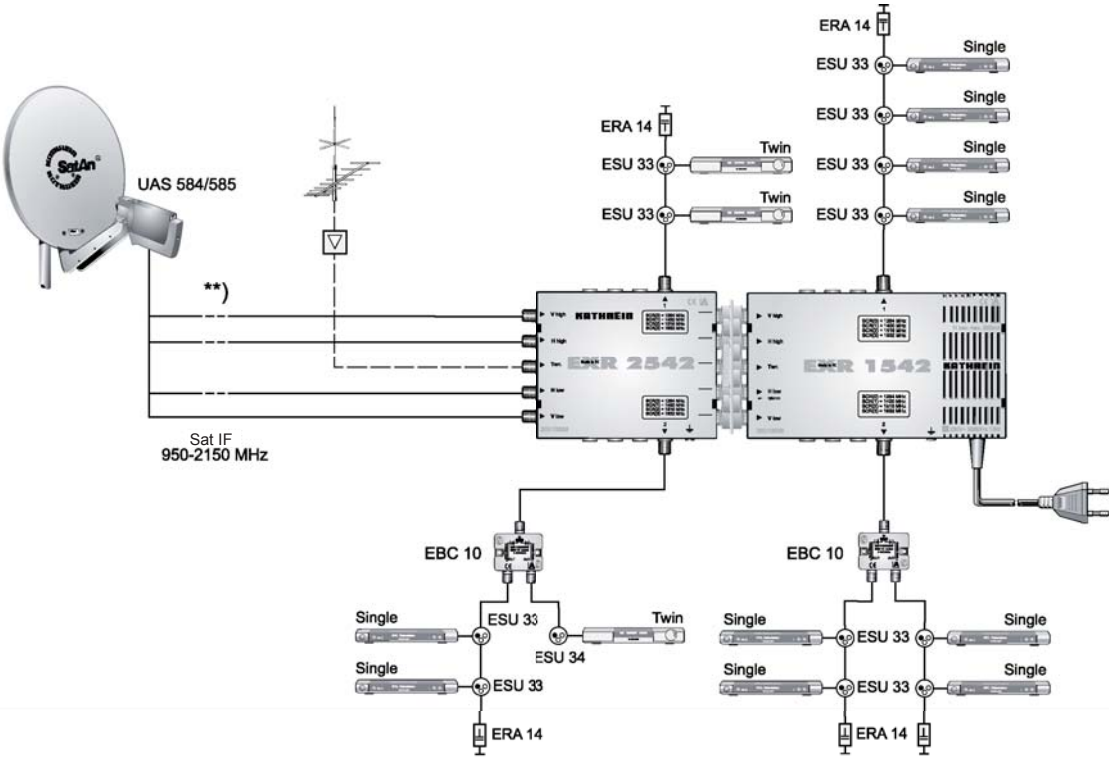


**) KAZ 11/KAZ 12 overvoltage protector

Single cable systems

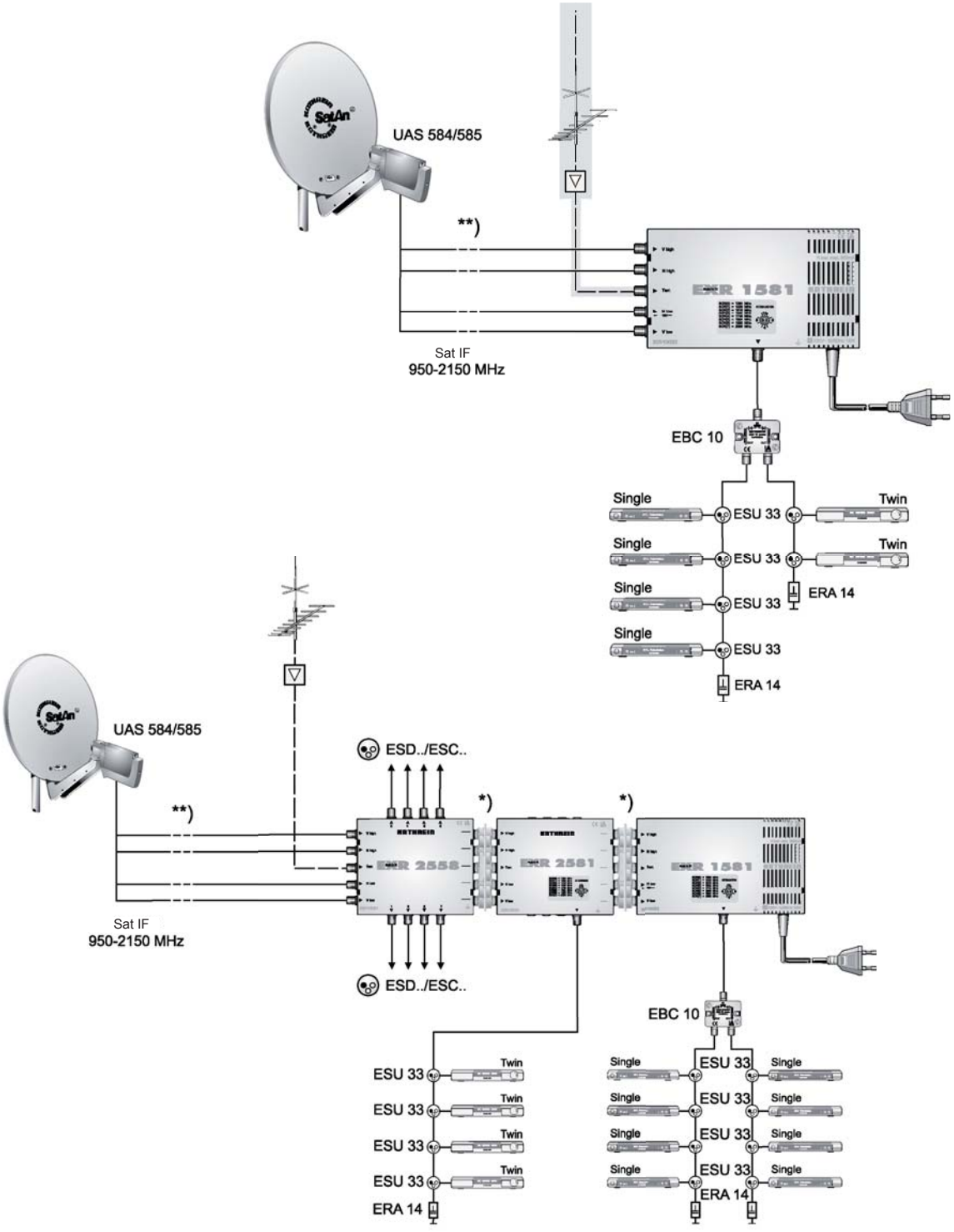






4 connections per living unit

**) KAZ 11/KAZ 12 overvoltage protector



**) KAZ 11/KAZ 12 overvoltage protector

AC 3
Output for Dolby Digital signal

ASTRA
SES (Société Européene des Satellites) satellite system. Analogue and digital transponders in the frequency range 10.7-12.75 GHz.

AV programme pos.
Preferred programme slot on TV set for external connections such as Scart and HDMI

CAM – Conditional Access Module
Decryption decoder, which uses a smart card to decrypt the encrypted radio and TV signals.

Channel package
The channel package for a digital transponder normally includes several TV and radio channels. Each channel package has a fixed assignment for the transponder transmission frequency, for polarisation (horizontal or vertical), for the symbol rate and for the Viterbi rate or error rate.

CI - Common Interface
Internationally standardised interface for CA modules

Composite colour
Colour baseband signal for the transmission of colour video signals

Data rate
Data bits transmitted per second. Is expressed in kbit/s or Mbit/s. The higher the data rate the better the quality of the transmitted signal.

Data reduction
Compression of video and audio signals. Redundant information is discarded.

DiSEqC™
DiSEqC™ (Digital Satellite Equipment Control) is a communication system between a satellite receiver (master) and the peripheral satellite components (slaves), such as LNBs, multi-switches, rotating antenna systems.
It is a single master/multi-slave system, i.e. there is only ever one master in the satellite system. All activities start from the master.

DiSEqC™ components
If DiSEqC™ switching matrices are cascaded, the master receiver must transmit the DiSEqC™ signal several times, so that all DiSEqC™ multi-switches in the cascade receive their commands.
These days, DiSEqC™ components (slaves) must be downward compatible, i.e. respond to the analogue switching criteria from receivers that are only equipped with H/V and 22 kHz control signals.
A DiSEqC™ switching matrix will work with analogue switching criteria until the DiSEqC™ command from the master is received. All analogue switching criteria are then ignored.

Dolby Digital 5.1
Dolby Digital is a sound transmission that allows digital surround sound to be output on a home cinema system.

DVB - Digital Video Broadcasting
DVB-S refers to the transmission method (S = satellite, C = cable, T = terrestrial).

DVB-S2
An enhanced DVB-S signal for HDTV with better quality.

EUTELSAT
European Satellite operator, based in Paris. Many orbit positions and European customers. Transponders in the frequency range 10.7-12.75 GHz.

FAT and FAT32
File systems for storage media

FEC
FEC is the abbreviation for Forward Error Correction. A technique for reducing the error rate of data transmission. Additional bits are inserted into the data stream, so that error-correction algorithms can be used on reception. The FEC error rate corresponds to the Viterbi rate.

GNU
GNU is not Unix, it is an open operating system for software developers.

HD – Ready
This is a label created by the EICTA (European Information, Communications and Consumer Electronics Industry Technology Association) for equipment that is capable of reproducing HDTV.

HDCP – High-bandwidth Digital Content Protection
Encryption system which protects the HDMI and DVI interfaces for secure transmission of video and audio data.

HDMI - High Definition Multimedia Interface
Digital interface for digital video and audio data transmission between TV and receiver (preferred for HDTV).

HDTV – High Definition Television
High resolution television with a resolution up to 5 times higher or finer than PAL or NTSC.

High band
Satellite frequency range between 11.7 GHz and 12.75 GHz.

H.264
Another designation for MPEG-4.

JPEG - Joint Photographic Experts Group
Image compression technique.

Linux
Operating system

LNB - Low Noise Block Converter
Converts the satellite downlink frequencies into the Sat-IF.

Low band
Satellite frequency range between 10.7 GHz and 11.7 GHz.

MP3
File format for compressed audio files

MPEG-2
MPEG is the abbreviation for Moving Picture Experts Group, a working group that formulates internationally applicable standards for the digital compression of video and audio. MPEG-2 has become established as the standard for compression of digital TV signals. MPEG-2 works up to a data rate of 100 Mbit/s.

MPEG-4
A further development of MPEG-2 with even higher data compression, intended for HDTV transmissions.

NIT
The channel identification number is also referred to as the Network ID or NIT.

NTFS
File system for storage media

OSD – On-Screen Display
Displays by the receiver on the TV screen (e.g. main menu)

PAL
Analogue TV standard

Pay TV
Television channels available on subscription (e.g. Sky). Encrypted transmitters which can be decrypted only by using the appropriate smart card. As a rule these services are subscription-only.

PID
The PID (Packet IDentification) number is an identification number for video signals and audio signals in the digital data stream of DVB-MPEG-2 signals. The receiver uses the PID number to create a unique assignment for the video and audio data transmission. The PCR-PID is the identification number for the synchronisation signal. The PID-PCR is normally identical to the video PID. For programmes broadcast in multiple languages, the audio PD can be entered manually to assign a different language to the TV programme. After the PID is entered, the digital receiver automatically selects the audio data identified by the PID number from the data stream and assigns it to the video signal.

PIN
Personal Identification Number. For this unit the PIN is a 4-digit numeric code which must be entered to unlock the unit to allow access to certain functions and channels.

Polarisation
The individual transponders on satellites transmit on two different (polarisation) planes (horizontal and vertical). As a result the capacity of the transponder is increased.

QPSK - Quadrature Phase Shift Keying
Digital modulation process that is used for satellite transmission (8PSK is also used in connection with HDTV).

Receivers
Receiver

RGB
Video signal made up of three individual colour signals (red, green, blue)

SAT IF signal
Receiver input signal, satellite intermediate frequency

Scart cable
21-pin connecting cable (e.g. receiver/TV)

SCR single cable system - Satellite Channel Router
The single-cable system is used to distribute digital Sat IF signals (including HDTV) and terrestrial signals over one cable to up to eight receivers. There is no limit on the variety of channels, i.e. the complete range of channels from one or two satellites is transmitted. Switching and the transponder selection are undertaken in the feed system or in the matrix and are controlled by the receiver using a special DiSEqC™ command set as per EN 50494. Each receiver is allocated a fixed subscriber frequency over which it receives its channels. A twin receiver requires two such subscriber frequencies. The transponder selection and conversion to the subscriber frequencies is undertaken using special tuner modules, so-called SCR (Satellite Channel Router) that are installed in the feed system or in the matrix.
The Kathrein single-cable system satisfies the single-cable standard in accordance with EN 50494, i.e. all components of a single-cable system that satisfy this standard can be installed in a satellite system

Smart card
Card from Pay TV provider to decrypt its channels

Standby
Standby mode

Symbol rate
The symbol rate describes the quantity of data that is transmitted per second. The symbol rate is measured in MSymbols/s and is equal to the number of symbols received per second.

Timeshift function
Time shifted playback

Transponder
A transponder is a frequency converter which receives TV and radio signals broadcast from the earth, converts them and the rebroadcasts them to the earth at a different frequency. A satellite has several transponders.
Analogue transponders transmit only one TV channel and possibly multiple radio channels on a single transmission frequency.
Digital transponders simultaneously transmit several TV and several radio programmes on a transmission frequency. If a channel provider is broadcasting several TV channels via a digital transponder, we refer to the provider's channel package. The terms “digital transponder” and “channel package” have the same meaning.

VCR/PVR connection
Connection for an external recorder (such as a video or DVD recorder)

Viterbi rate
The Viterbi rate (code rate, error rate) characterises the error protection used by the channel provider. The DVB standard provides the following values: 1/2 - 2/3 - 3/4 - 5/6 - 7/8

Y/C
S-video signal

8PSK (8-Phase-Shift-Keying)
Digital modulation process used for HDTV satellite transmission

Service

If, despite studying this operating manual, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer.

General Terms and Conditions of Business for HD+

1 Application, Subject of Contract and HD+ Card

1.1 The present General Terms and Conditions of Business of HD PLUS GmbH, registered office at Betastraße 1-10, D-85774 Unterföhring ("HD PLUS"), shall apply solely to the HD+ Service.

1.2 HD PLUS shall surrender to the user the title to a data carrier ("HD+ Card") according to the present General Terms and Conditions of Business. The software and data stored on the HD+ Card (jointly referred to as the "HD+ Software") merely constitute the technical prerequisite for decoded reception of certain television programmes broadcast in digitally encoded form ("range of channels") by means of a digital receiver with HD+ certification ("HD+ Service").

1.3 HD PLUS shall grant the user a non-exclusive, non-transferrable licence for utilisation of the HD+ Software contained on the HD+ Card in accordance with the terms and conditions for the purpose of decoding the range of channels according to the contract. **This right shall be restricted to the territory of the Federal Republic of Germany. The user shall not be permitted to utilise the HD+ Card outside Germany.** HD PLUS may demand that the HD+ Card is used solely in conjunction with a digital receiver allocated to same. HD PLUS shall be moreover entitled to ensure this by technical means (so-called pairing of digital receiver and HD+ Card).

1.4 Activation of the HD+ Card shall be the responsibility of the user. The HD+ Card may not be used in any manner other than as agreed. The user shall not be entitled to copy, modify, disassemble or decompile the HD+ Software or apply other procedures to same in order to ascertain its source code or structure or to discover or influence processes or its intermediate representation without authorisation. Statutory rights of decompilation shall remain unaffected thereby.

1.5 The digital receiver, the display device (e.g. television set) and the range of channels shall specifically not constitute the object of performance. Certified digital receivers are commercially available for purchase. Their installation shall be the responsibility of the user. In the event of technical or general problems with the digital receiver the responsibility for customer service shall lie with the manufacturer of the digital receiver. The number and composition of the range of channels may vary in the course of the contractual term.

1.6 HD PLUS reserves the right to transfer the software required for utilisation of the HD+ Service or for its supplementation or modification to the HD+ Card and the digital receiver free of charge at random intervals or to update, supplement or modify the HD+ Software contained therein. Notwithstanding the above provisions, the liability of HD PLUS shall be limited in the event of any loss of data to the expenditure typical of data recovery.

1.7 HD PLUS reserves the right to block or to withdraw support for HD+ Cards which following the infringement of rights including by third parties permit unauthorised utilisation of the HD+ Service and/or bypassing of encryption. In the case of blocked or unsupported HD+ Cards it shall not be possible to renew the HD+ Service following the expiry of activation according to item 3.1.

2 Authorised Users and Prerequisites for Utilisation

2.1 The HD+ Service shall be available to natural persons who are at least 18 years of age and is solely intended for private, non-commercial usage.

2.2 The prerequisite for utilisation of the HD+ Service is a digitally capable satellite receiver, aligned to one of the satellites used by HD PLUS (cf. www.hd-plus.de/faq) as well as the use of a digital receiver bearing the HD+ logo and a display device (e.g. television set), which are not however included in the scope of supply (cf. item 1.5).

2.3 Unlimited utilisation of the HD+ Service to its full extent is possible only with the use of digital receivers certified by HD+. Technical restrictions in usage of the HD+ Service may occur if digital receivers without HD+ certification are utilised, including with the use of Common Interface+ receiver modules certified by HD+. It may in particular not be possible to decode or display individual channels. This shall not give rise to any warranty claim or special right of termination vis-à-vis HD PLUS on the part of the user.

3 Flat-rate Service Fee / Term and Renewal of HD+ Service

3.1 A flat-rate service fee shall be charged for utilisation of the HD+ Service. This shall be paid for twelve months in advance by the purchase of an HD+ Card or renewal of the HD+ Service for an activated HD+ Card where sameze has not been blocked for renewal according to item 1.7, at the price currently applicable in each case (cf. www.hd-plus.de/preise). Renewal of the HD+ Service shall be carried out by means of the payment procedure offered by HD PLUS (cf. www.hd-plus.de/reload). HD+ Cards which already include activation for the HD+ Service for a period of 12 months at no further cost to the user shall be issued in the framework of marketing offers, for example in conjunction with the purchase of an HD+ certified digital receiver.

3.2 The term granted for utilisation of the HD+ Service shall commence with activation of the HD+ Card. Cards shall be activated when inserted in the slot of an HD+ certified digital receiver provided for this purpose and used to decode an HD+ Programme for the first time.

3.3 The user shall be informed in good time prior to the expiry of activation for the HD+ Service by the appearance on the display device of a message referring to expiry and the possibility of renewal and/or new purchasing options for utilisation of the

HD+ Service. The activation of HD+ Cards should not be renewed until this message has appeared on the display device. Otherwise the existing activation period may be reduced in length. The purchase of an HD+ Card shall not however give rise to any entitlement to renewal.

3.4. The range of channels and services offered by third parties and their reception and/or utilisation may incur separate costs for which the user is himself responsible.

4 Observance of Copyright

The HD+ Software and the HD+ Card are protected by law. Where programs owned by licensers are used, their property shall enjoy the same level of protection. Any unauthorised reproduction or distribution of the HD+ Software or HD+ Card and/or its pirating will be the subject of civil action instituted by HD PLUS, and possibly also criminal proceedings.

5 Rights and Obligations of User

5.1 Every user of the HD+ Service bears personal responsibility for its proper usage; the user must in particular ensure that programme content morally harmful to youth is accessible only to persons permitted by law to view same.

5.2 The user may not put the HD+ Service to misuse and is obliged to protect the HD+ Card from loss and misuse. The user shall in particular not be permitted to make any intervention in the HD+ Software or arrange for such intervention in order for example to enable the unauthorised reception of encrypted channels. The use of devices in order to bypass encryption shall be likewise prohibited. Such misuse may become the subject of civil action and criminal proceedings. Reference is made in this regard to item 6 and item 7.3.

5.3 Where provision of the HD+ Service is impaired or interrupted following intervention in the software or hardware of the user for which HD PLUS is not responsible, the user shall not be entitled to claim reimbursement of any flat-rate service charge already paid. This shall also apply where the HD+ Card has become damaged or lost.

6 Indemnification

The user shall be responsible vis-à-vis HD PLUS for fulfilment of the obligations listed under items 4 and 5. He shall indemnify HD PLUS from all third-party claims asserted against HD PLUS as the result of culpable infringement of said obligations and/or harmful action on the part of the user and shall provide compensation for any further losses including the costs of bringing an action and legal defence.

7 Rights and Obligations of HD PLUS

7.1 HD PLUS shall notify the user of any temporary cessation or restriction in service which is not merely insignificant. Such obligation of notification shall not exist where in the given circumstances, notification is not objectively possible prior to commencement of the cessation or restriction in service or where this would delay the rectification of existing interruptions.

7.2 HD PLUS reserves the right without further notice to carry out maintenance and servicing on its technical systems for the purpose of continuation and/or improvement of the HD+ Service. Such maintenance windows may involve the interruption or impairment of reception of the range of channels without however giving rise to an entitlement to a price reduction on the part of the user.

7.3 In the event of infringement of the present terms and conditions of utilisation or a reasonable suspicion of infringement by the user, in particular with regard to above items 4 and 5, HD PLUS shall be entitled at its own discretion:

7.3.1 to exclude the user from utilisation of the HD+ Service either on a temporary or permanent basis and/or

7.3.2 to effect exceptional termination of the contract of utilisation according to item 10.1.

7.4 HD PLUS shall serve a warning notice on the user prior to exclusion or termination unless the infringement is of such gravity that HD PLUS cannot be reasonably expected to uphold the contract of utilisation.

7.5 In the event of exclusion from service for which the user is responsible according to item 7.3 the user shall also be liable for payment of the remuneration for the period of exclusion and the interruption in service.

8 Guarantee

8.1 To render its services HD PLUS avails itself of communications networks or technical facilities belonging to third parties which are beyond the control of HD PLUS. HD PLUS is thus unable to rule out temporary restriction, impairment or failure of the HD+ Service due to influences beyond the control of HD PLUS. HD PLUS can in particular provide no guarantee that it will be possible to receive specific channels at a specific time; this shall not apply where HD PLUS is responsible for a malfunction.

8.2 The user acknowledges that the quality of the range of channels decoded and made accessible firstly depends on the quality of the signal provided by third parties and secondly, on the performance of the display devices employed by the user, and that both exceed the sphere of responsibility of HD PLUS. The user likewise acknowledges that the recording and playback of recorded programmes may be restricted by third parties.

8.3 HD PLUS points out that it is not possible to develop software programs that ensure faultless operation for all requirements.

8.4 HD PLUS shall immediately eliminate, in the framework of its existing technical and operational facilities, all reported malfunctions

in the HD+ Service where elimination does not require replacement of the HD+ Card. The costs for availment of the HD PLUS customer service shall be borne by the user. Temporary impairment of reception due to atmospheric disturbances or the failure of transmitters or satellites shall not entitle the user to any reduction in price.

9 Liability

9.1 HD PLUS shall only incur liability where HD PLUS, its agents and/or statutory representatives can be charged with intent or gross negligence.

9.2 In the event of prejudice due to slight negligence HD PLUS shall only be liable where a major contractual obligation has been breached or in the case of default or frustration. In such cases liability shall be limited to the typically foreseeable losses.

9.3 HD PLUS shall not be liable where there is any temporary impairment in reception of the range of channels beyond the control of HD PLUS, in particular with failure of the satellite signal for which HD PLUS is not responsible.

9.4 HD PLUS shall not be responsible for the decoded channels and their content which it has made accessible.

9.5 The liability of HD PLUS provided for by law regardless of fault, in particular its liability pursuant to the Product Liability Act and its statutory liability for breach of warranty, shall remain unaffected by the above limitations of liability. This shall likewise apply to the liability of HD PLUS in the event of culpable injury to life, limb or health on the part of a user. No-fault liability as provided for under § 536a German Civil Code shall be excluded where an HD+ Card is supplied to the user by HD PLUS.

9.6 Items 9.1, 9.2 and 9.5 encompass all contractual and statutory claims which can be asserted regarding utilisation of the HD+ Service.

10 Duration and Termination of Contract and Modification of HD+ Service

10.1 The contract governing utilisation of the HD+ Service shall extend for the period of time agreed in each case from the date of activation of the HD+ Card and can be renewed by the user provided that his HD+ Card has not been blocked as provided for under item 1.7. Any rights of exceptional termination shall remain unaffected thereby.

10.2 The user shall not be entitled to effect exceptional termination because there is a change during the term of the contract in the number or composition of the range of channels which can be decoded by the user with the help of the HD+ Software.

10.3 Where the HD+ Service is terminated by HD PLUS following the issue of a warning notice in the circumstances described under item 7.3, HD PLUS shall be entitled to claim compensation in accordance with the statutory provisions.

11 Data Protection

Details about data processing can be found in the data protection information sheet (cf. www.hd-plus.de/datenschutz).

12 Final Provisions

12.1 HD PLUS shall be entitled to assign its rights and obligations ensuing under the present contract either partially or in their entirety to a third party who is fit to uphold the contract in the proper manner. The user shall be entitled in such case to terminate the contractual relationship with effect from the date on which assignment takes place.

12.2 The law of the Federal Republic of Germany shall apply. The application of UN Law on the International Sale of Goods shall be excluded.

Status: March 2010

Cancellation
Right of Cancellation
You can cancel the contract within two weeks without specifying any reason by means of written notification (e.g. letter, fax, e-mail). This period shall commence following receipt of the present instruction in written form, albeit not prior to the end of the contract, nor prior to fulfilment of our obligations of information pursuant to § 312c para. 2 of the German Civil Code in conjunction with § 1 para. 1, 2 and 4 of the German ordinance regarding the obligations of information (BGB-InfoV). The period of cancellation shall be deemed to have been observed where notice of cancellation is dispatched within this time. The notice of cancellation shall be addressed to:

HD PLUS GmbH
Betastr. 1-10
85774 Unterföhring GERMANY
District Court of Munich, HRB 159479
Directors: Wilfried Urner (Chair), Georges Agnes, Martin Oberfrank, Timo Schneckenburger

Consequences of Cancellation
In the event of effective cancellation the services received by both parties shall be given back and any benefit resulting therefrom (e.g. interest) shall be returned. Where it is not possible for you to give back to us the services received either partially or in their entirety or only in a state of deterioration, you must compensate us in this regard as appropriate. Obligations entailing the reimbursement of payments must be fulfilled within 30 days. Said period shall commence for you with dispatch of your notice of cancellation and for us with its receipt.
Should a service be rendered, your right of cancellation shall be forfeited prematurely where your contracting party commences execution of the service with your express consent prior to the end of the cancellation period or this was requested by yourself.
Your HD PLUS GmbH

For your notes

For your notes

936.3883/-/0610/ZWT - Technical data subject to change.

Internet: www.kathrein.de
KATHREIN-Werke KG • Anton-Kathrein-Straße 1 - 3
P.O. Box 100 444 • 83004 Rosenheim GERMANY

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